

a certain number of recognized names from which a choice 551
is usually made. A few examples from the North Andaman
are:—

<i>Ra-Pot-bet</i>	pig's hair.
<i>Renya-čope</i>	much baggage, or many possessions.
<i>Poičo-tomo</i>	the wood (literally flesh) of the <i>Sterculia</i> (<i>poičo</i>) tree.
<i>Lau-tei</i>	spirit blood.
<i>Luremo</i>	rope.
<i>Remu-toi</i>	a piece of iron.
<i>Čokbi-čtro</i>	turtle liver.
<i>Tarenjek</i>	angry.

During childhood boys and girls are addressed by either
the birth-name or the nick-name.

When a girl reaches the age of puberty she receives a new 551
name. This is one of a limited number of names, each of which
is the name of a tree or plant. The name given to the girl 553
is that of the tree or plant that is in flower at the time of her 824.
first menstruation.

There is a succession of trees and plants flowering one after
another throughout the year. The natives describe the different
parts of the year by reference to the plants in flower at the time.
The plants selected as typical of the different seasons all have
flowers from which the native bees make honey. Each of them
has a distinctive scent and gives to the honey made from it
a distinctive flavour. The flower-names are given below in *Aka-
Bea* and *Aka-Jeru*.

Aka-Bea	Aka-Jeru	
<i>Čilipa</i>	<i>Čelibi</i>	From the middle of November to the middle of February.
<i>Moda</i>	<i>Mukui</i>	From the middle of February to the middle of May, in order.
<i>Ora</i>	<i>Okor</i>	
<i>Jidga</i>	<i>Jeru</i>	
<i>Yere</i>	<i>Botek</i>	
<i>Pataka</i>	<i>Puliu</i>	
<i>Balya</i>	<i>Re</i>	From the middle of May to the end of August.
<i>Reče</i>	<i>Čokoro</i>	
<i>Čagara</i>	<i>Čarap</i>	September, October and the first half of November.
<i>Čarapa</i>	<i>Torok?</i>	
<i>Čenra</i>	<i>Jili</i>	
<i>Yulu</i>		

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278
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White clay (*tol-odu* in *Aka-Jeru*) is sometimes used medically, both externally and internally. The commoner clay (*odu* in *Aka-Jeru*) is plastered on sores, and has the effect of keeping off flies, if it does nothing else.

An olive-coloured earth (called *čulga* in *Aka-Bea*), found in certain springs, is prized as a remedy. It is mixed with water and taken internally as a general remedy for all sorts of complaints.

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Turning now to the magical properties of vegetable substances, there are a large number of these, and some of them have not been botanically identified.

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The *Anadendron paniculatum* is a plant from which the Andamanese obtain a valuable fibre, which they use for their bow-strings, and for thread with which to make their arrows and harpoons. A number of magical properties are attributed to this plant. Rheumatism is supposed to be due to the "smell" of the plant getting into the system when the fibre is being prepared¹. The "smell" of the green plant, or of the fibre until it has been thoroughly dried for some days, is believed to frighten away turtle. A man who has been preparing the fibre would not dream of joining a turtle-hunting expedition, for his presence in the canoe would be sufficient to drive away all the turtle. A turtle-hunting expedition would be a failure if a piece of the green creeper were in the canoe. A man who has been handling the plant may not cook turtle, for the meat would be "bad," i.e., uneatable. The same thing would happen if turtle meat accidentally came in contact with a piece of the plant. All this applies only to the green creeper, and not to the fibre after it has been properly prepared and dried. The fibre itself is used for binding the heads of turtle-harpoons, so it is evidently regarded as harmless.

If a piece of the *Anadendron* creeper were burnt in the fire the natives believe that it would drive all the turtle away from the neighbourhood, or, according to another statement, that there would be a great storm.

000 So far we have considered the properties of the plant only in

¹ In preparing the fibre, the skin or bark of the young shoots of the plant is torn off in strips and these are placed on the thigh and scraped with a *Cyrena* shell.

III]

RELIGIOUS AND MAGICAL BELIEFS

181

so far we have considered the properties of the plant only in so far as they make it dangerous to handle. It has other and beneficial properties. It is said that a man swimming in waters infested with sharks would be safe from them if he had a piece of the *Anadendron* creeper with him, in his belt or necklace. The creeper is also supposed to preserve anyone who carries it from the attacks of the sea spirits (*Jurua*).

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The *Hibiscus tiliaceus* is a small tree from which the natives obtain the fibre which they make into rope, used now for harpoon lines and in former times for turtle-nets. The leaves of this tree are believed to have the power of keeping away the spirits of the sea. They have no efficacy, however, against the spirits of the forest. Leaves of the *Hibiscus tiliaceus* are used in the turtle-eating ceremony described in the last chapter. For cooking turtle the only wood that may be used is the *Hibiscus*. If any other wood were used the meat would not be good. In this connection it is necessary to point out an error in the statements of Mr Man. He says that the wood of the *alaba* must never be used for cooking turtle, though it may be used for cooking pig, and that *Puluga* is angry if this commandment is not observed and sends either the sun or moon to punish the offender¹. There is evidently an error here. The *alaba* is the *Hibiscus tiliaceus*. Mr Man identifies it with the *Melochia velutina*, but this is an error. Now the custom in connection with the *Hibiscus (alaba)* is not that it may not be used for cooking turtle, but that no other kind of wood must be used. It is difficult to see how Mr Man fell into the error, unless he mistook a statement regarding the *yelba* (*Anadendron paniculatum*) for a statement relating to *alaba* (*Hibiscus tiliaceus*). We have just seen that if the *Anadendron* comes in contact with turtle meat the meat will be bad, and that if it is burnt there will be a storm.

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Another plant that provides fibre for thread is the *Gnetum edule*. There is a belief that the green creeper of this plant will drive away turtle, if a piece of it be taken in a canoe.

Magical properties are attributed to the *Ficus laccifera* tree. These trees are believed to be the home of the yet unborn souls of children. I was told in the North Andaman that if a tree of

¹ Man, *op. cit.* pp. 153 and 175.

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784 the species were cut there would be a storm. The bark of the aerial roots of the tree affords a fibre used in the Little Andaman for bow-strings, but only used in the Great Andaman for making personal ornaments. It is possible that some magical properties are attributed to the ornaments made from this fibre.

The *Pterocarpus dalbergioides* is one of the most striking trees of the Andamans. It has a very hard red wood, from which the natives make their sounding-boards. There is an obscure belief in the *A-Puĉikwar* tribe (and possibly also in other tribes) that it is dangerous to look at the tree when it is in flower. I was twice told a story of how some people were affected by looking at the flowers, and either went mad or died. On one occasion my interpreter translated the words of my informant by saying "They saw the flowers, and went giddy, and they all went to hell (*Ĵereg-far-mugu*)."
Men must be careful when the tree is in flower, not to look at it too long. In the North Andaman I was told that string games (*Ĵipre*) must not be played when the *Pterocarpus* tree is in flower. They may be indulged in with safety at any other time of the year. (String games, according to one statement, were invented by the *Lau*, while another account attributes the invention to the crab.)

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751 The *Tetranthera lancafolia* is a small tree from which the natives obtain the wood for the shafts of their pig arrows. The leaves of this tree are believed to have the power to keep away the spirits of the forest. They are used in the pig-eating ceremony described in the last chapter. The wood is shredded and made into plumes, and these plumes are believed to have magical properties. They are worn by a man who has killed another, and are believed to protect him from the vengeance of the spirit of the dead man.

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757 A common remedy for sickness of different kinds is a small tree called *gugma* in *Aka-Bea*, which Mr Man identifies as being *Trigonostemon longifolius*. The leaves of this tree are made into a bed for the patient to lie upon. They are also crushed and rubbed over the patient's body, or he is made to inhale the odour of the crushed leaves. The natives say that it is the "smell" of the plant that possesses medical properties. The

"smell" will drive away turtle, and leaves should therefore not be taken in a canoe. A man who has been handling the leaves would not go turtle-hunting.

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Another remedy is a species of *Alpinia*. The leaves and stems of this plant are chewed and the juice swallowed for certain ailments. The plant is also used when taking honey. A man takes some of the leaves in his mouth and chews them well. Before taking the honeycomb he sprays the saliva from his mouth over and around it. He may also rub the chewed leaves over his body. The natives say that in this way they are able to prevent the bees from stinging them.

Magical properties are attributed to a number of plants that have not been botanically identified. Thus the leaves of a small tree called *tare* in *Aka-jeru* are crushed and moistened with water and rubbed over the body as a remedy for illness. A strip of bark from the same tree is tied round the chest of a man with a pain in his chest. The bark of two trees called (in *Aka-jeru*) *tip* and *laro* is crushed and moistened and rubbed over a sick man's body. The leaves of a plant called *pore* are crushed with water and the infusion is drunk by persons suffering from diarrhoea and abdominal pains. A creeper called *korotli* is crushed and tied round a limb in cases of snake-bite. The seeds of the *Entada scandens* are heated in the fire and applied (while hot) to such wounds as that from the tusk of a boar.

There are a certain number of trees and plants about which the natives say that any person cutting them will become blind. The names of four of these in *Aka-jeru* are *jin*, *burut*, *deg*, and *mit*.

We may turn now to animals and animal substances. Magical properties are attributed to bees'-wax, particularly to black bees'-wax. In a case of pleurisy black bees'-wax was heated until it was soft, and then smeared over the man's chest. Bees'-wax is believed to keep away the spirits of the forest.

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If a man be bitten by a snake and the snake be killed it is skinned and the inner surface of the skin is applied to the wound.

harpoons and other hunting implements, and it can be shown that they do attribute to these implements and to the materials from which they are made powers of protection against evil. Moreover it is even possible to apply a quantitative test and show that the more important the place a thing occupies in the social life the greater is the degree of protective power attributed to it. Finally I shall be able to show that as different materials are used for special purposes so they are supposed to have certain special powers of protection against certain sorts of danger. Thus the hypothesis I have stated is capable of being as nearly demonstrated as is possible in such psychological enquiries as the one we are engaged in.

A man carrying his bow and arrows is supposed to be less likely to fall a victim to the spirits than one who has no weapons with him. One way of stopping a violent storm is to go into the sea (storms being supposed to be due to the spirits of the sea) and swish the water about with arrows. The natives sometimes wear a necklace formed of short lengths of the bamboo shaft of a fish-arrow. All the examples of such necklaces that I met with had been made from an old arrow. I asked a native to make one for me, and although he could readily have made one from bamboo that had never served as an arrow he did not do so, but used the shaft of one of his arrows. Such a necklace may therefore be described as an arrow in such a form that it can be worn round the neck and thus carried continually without trouble. The protective power of the bow is at first sight not quite so evident, but the material used for the string is regarded as possessing protective power, and to this I shall return shortly.

The best demonstration of the truth of the explanation offered is to be found by considering the different vegetable fibres of which use is made. The most important of these are the *Anadendron paniculatum* (used for bow-strings and for fine string), the *Hibiscus tiliaceus* (used for rope) and the *Gnetum edule* (used for string, and inferior to the *Anadendron*). All these fibres are believed to possess power to keep away dangers, but there is a sort of specialisation in their use.

The fibre of the *Hibiscus* is used mainly in the hunting of turtle and big fish. Consequently the tree itself from which the

X 182
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824 fibre is obtained is believed to possess the power of warding off all dangers connected with turtle and the sea. There is a custom that turtle flesh may only be cooked with wood of the *Hibiscus*, otherwise it will be uneatable. In the turtle-eating ceremony the initiate who, as we shall see later, is in a condition of danger by reason of having eaten turtle for the first time after a period of abstention, is seated on *Hibiscus* leaves and holds a bundle of the same leaves before him. At the same ceremony the leaves of this tree are used in the dance, and the initiate is given a skewer made from its wood with which to feed himself. If for any reason the leaves of the *Hibiscus* are not obtainable when the ceremony is performed those of the *Myristica longifolia* are used instead. Now this is the tree from which the natives always make their canoe paddles, which, like ropes of *Hibiscus* fibre, are used in hunting turtle. This specialisation is therefore easy to understand; the natives habitually make use of the *Hibiscus* and the *Myristica* in turtle-hunting; they use the intrinsic qualities of these trees in their actual struggles with turtle and large fish, and by means of these qualities they are able to succeed in overcoming their prey; they therefore come to believe that these trees possess special powers which not only enable them to conquer the turtle itself but also are able to protect them from the evil influences that they believe (for reasons to be explained later) result from the eating of its flesh.

This explanation is readily verified by considering an exactly parallel instance. In the pig-eating ceremony at initiation the leaves of the *Hibiscus* or the *Myristica* are not used, and are regarded as valueless. Paddles and ropes are of no use in hunting pigs. The leaves that are used in this ceremony are those of the *Tetranthera lanceifolia*. It is from this tree that are obtained the shafts of pig-arrows. Hence the relation of the tree to the pig is exactly parallel to that of the *Hibiscus* to turtle. It is by making use of the qualities of the wood that they are able to destroy the pig and so they believe that its leaves will enable them to destroy the dangers that result from the eating of the animal.

The leaves of the *Tetranthera* are also used, however, in the ceremony at a girl's first menstruation, and I cannot pass over this without an explanation. It is to be found in the fact that

pig-arrows are used in fighting, so that the tree comes to have a special relation to the shedding of blood. Plumes of shredded *Tetranthera* wood (made from an old arrow-shaft) must be worn by a homicide during the period of "purification" as a protection against the dangers that are believed to threaten him because he has shed blood. The same plumes were formerly always carried in a dance preceding a fight, and at such times the natives used to rub their bows with the shredded wood in order to ensure success in battle. Thus it is clear that there is a special connection between this tree and the shedding of blood, due to the fact that pig-arrows, of which the shafts are made from it, are used in fighting as well as for killing pigs and other animals. It is probable that this is the explanation of the use of the leaves during the ceremony at a girl's first menstruation.

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These examples afford a crucial test of the hypothesis here maintained. Not only is the protective power of these substances explicable by the fact that they are things on which the society depends in its daily life, but the special uses of each of them as amulets are only explicable when we consider the different uses to which they are put as materials.

The fibre of the *Anadendron paniculatum* is used for making thread, bow-strings, the cords of pig-arrows, and for binding the heads and barbs of harpoons and arrows. It has therefore no special relation to either pig or turtle. There is a belief, however, that the plant does possess special protective powers that make it efficacious against certain dangers coming from the sea. A piece of the plant tied round the neck or worn in the belt of a swimmer is believed to protect him from sharks and other dangerous fish. A piece of it crushed and placed in the sea is said to have stopped a violent storm on one occasion. Thus the *Anadendron* seems to possess a special power which makes it a source of protection against dangers from the sea. The same is true of the *Gnetum edule*, though, as this fibre is less valued than that of the *Anadendron*, it is not supposed to be so powerful in its effects. In regard to the specialisation in the use of these two plants as amulets it seems likely that it is due to a notion of opposition between the things of the forest and the things of the sea. The Andamanese live in a double environment; the jungle-

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824 dwellers live entirely in the forest and have dealings with forest things; they develop knowledge and powers that make them better woodsmen than the coast-dwellers. The latter live by the sea and are chiefly occupied with things of the sea, being skilled in the occupations of fishing and canoeing. There is thus a contrast or opposition between the life of the forest and the life of the shore that runs through all the social life, and I believe that it is this opposition which explains the belief that the *Anadendron* and the *Gnetum*, which are essentially forest things, are possessed of a quality that makes them contrary or opposed to all things of the sea.

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301 Personal ornaments are made from the fibres that have been mentioned (*Hibiscus*, *Anadendron*, *Gnetum*), and we are justified, I think, in regarding such ornaments as being to some extent amulets. I purchased from a man in the Little Andaman a charm that was hanging round his neck, which he seemed to value highly. I imagined that it might contain a human bone, but when I had unwound the ornamental thread with which it was bound and opened out the covering of bark I found inside the parcel only a carefully folded length of rope made from *Hibiscus* fibre.

There is one fibre from which the natives of the Great Andaman make themselves ornaments, which they do not regularly use in any other way, namely that of the *Ficus laccifera*. We may perhaps regard this as a genuine and demonstrable example of a survival in custom. The natives of the Little Andaman, who, until their recent contact with those of the Great Andaman, did not know the use of the *Anadendron*, use the fibre of the *Ficus* for their bow-strings. We are justified in assuming, I believe, that the natives of the Great Andaman made a similar use of the same fibre before they had learnt to use the *Anadendron*. In those days much of the power that is now attributed to the *Anadendron*, because of its service as the material for bow-strings, must then have been attributed to the *Ficus*. When the substitution of the superior *Anadendron* fibre came about, the belief in the efficacy of the *Ficus* did not disappear, although the ground of the belief (if we may call it so) had ceased to exist. If this be so, then the present use of the *Ficus* fibre as an amulet

is an example of survival. It may be noted that the qualities of the *Ficus* are supposed to be similar to those of the *Anadendron*.
Thus while one medicine-man stopped a storm with *Anadendron*, another did the same thing on another occasion with *Ficus*.

The above examples are sufficient to justify the generalisation that the Andamanese attribute protective power to all those substances on the strength and other qualities of which they rely in order to obtain their food or overcome their enemies. There are one or two other positive instances that have not been mentioned. Bees'-wax, which is used for waxing thread and bow-strings, is believed to have power to keep spirits away and to cure sickness. Cane, which is used by the natives for many different purposes, seems also to have its use as an amulet, for belts and other personal ornaments are made of pieces of cane attached to a length of rope.

Negative instances are more difficult to discover. When I was in the Andamans I had not formulated the explanation that is offered here, and I therefore did not make any search for negative instances that might have afforded a means of testing the value of the hypothesis. I have no satisfactory evidence that protective power is attributed to iron, or to the shells that were formerly used, as iron now is, for the heads and barbs of arrows, but it is quite possible that I may have overlooked evidence that was really there. I do not think that any particular protective properties are attributed to such things as the materials from which baskets are made and the clay that is used for pottery. These things, however, may be regarded as luxuries rather than necessities; they are not of the same immediate service to the society in its fundamental activity (that of providing food) as are weapons and the materials used in them.

There are still two important kinds of amulets that remain to be considered. First, protective power is attributed to the bones of animals, which are made into personal ornaments; these cannot be dealt with until we have considered some of the beliefs relating to food. Secondly, a very high degree of protective power is attributed to human bones, but the discussion of this belief must wait till we have discovered the meaning of the funeral customs of the Andamanese.

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775 in the statements of the natives as to whether he becomes a spirit at once, immediately after the death, or whether he does so only after the flesh of the body has decayed. Both statements are sometimes made, but it seems common to think of the dead person during the period of mourning not as a spirit (*Lau*) but as a dead man (*empilo*). We may best express the ideas of the natives by saying that the process by which a man becomes a spirit is one that takes some months to complete, and is only ended when the bones are dug up. An interesting insight into their notions in this matter is afforded by a belief, about which unfortunately I have very scanty information, to the effect that when a man dies he is initiated into the world of the dead by a ceremony resembling the ceremonies by which a youth is initiated into manhood. In the statement of an *Aka-Kede* informant the ceremony was spoken of by the term *kimil*, which is generally used for the initiation ceremonies, and was described as a *peroto-kimil*, i.e., a ceremony in which the dead man ate *peroto* (*Caryota sobolifera*) in just the same way that a youth eats turtle (*čokbi*) at the *čokbi-kimil*. There is independent evidence that there is a special connection between the spirits of the dead and the *Caryota* palm¹.

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784 The description of this ceremony (of initiation into the world of the dead) that was given to me stated that in it the shredded fibre named *koro* was used in just the same way as the leaves of the *Hibiscus* are used in the turtle-eating ceremony. Further, as in the peace-making ceremony men stand against a suspended cane from which depend bunches of this same *koro*, so in the initiation into the spirit world the initiate has to stand against the rainbow while the dancing spirits shake it and him. It is this shaking of the rainbow (according to my informant) that causes earthquakes. It may be recalled that the rainbow is regarded as a sort of bridge between this world and the spirit world, and that its name is "the spirit's cane," so that it would seem that it is regarded as like a cane with *koro* fibre suspended from it, such as is used in the peace-making ceremony.

The explanation of the use of this *koro* fibre was postponed earlier in the chapter, and may well be undertaken here. It serves

¹ Page 171.

v]

CUSTOMS AND BELIEFS: CEREMONIAL

291

as a sign that the spot where it is placed is tabu, or, in more precise terms, that the spot must be avoided because of the presence there of a force or power that makes things dangerous. This force is present at the grave of a dead man, and therefore the fibre is placed at the grave to mark the fact, while a bunch is similarly suspended at the entrance to a village that is deserted after a death. In the peace-making ceremony the members of the one party stand against a suspended cane to which are attached strips of the fibre. The meaning of this, I think, is that it thus forbids the members of the other party from attacking them. If a man were to leave the screen of *koro*, he would, I believe, be liable to be killed by the enemy party; it is only as long as he stands against it with his arms outstretched that he is safe, because while there he is tabu.

How then does this belief in the fibre as a mark of tabu come about? The fibre is worn by the women of the Little Andaman to cover their pudenda, and it was formerly worn in this way by the women of the North Andaman. We may conclude that this was an old element in the Andaman culture dating back to the remote period when the inhabitants of the Little Andaman became separated from those of the Great Andaman. Now in a very special sense the sexual organs of women are tabu, and, without discussing the matter in detail, we may suppose that the Andaman Islander regards the genitals of women as a spot in which resides the same sort of force or power that makes the spirits, or the body of a dead man, dangerous. One point may be mentioned as throwing light on this subject, and helping forward the argument, namely that the natives of the North Andaman often use the expression *Lau-buku* (meaning literally "spirit-women" or "female spirits") to denote women collectively instead of the phrase that might be expected—*n'e-buku*. It would seem that by reason of their sex and the special ideas that are associated with it, women are regarded as having a very special relation with the world of spirits. We may conclude that the *koro* fibre, being a convenient material for the purpose, was first used as a covering for the women, and in this way came to be used as a sign of tabu in general, or else that for some unknown reason the fibre was selected as a suitable material to mark any kind of tabu, and

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so came to be used both as a covering for women and also as a sign of warning at the grave and the village that has been visited by death¹.

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To return from this digression to the question of the initiation of the dead man into the world of spirits, it is clear that since such ceremonies take time to accomplish there is a period during which the dead man is in an indeterminate position; he is no longer a member of the society of the living, and has not yet become a member of the society of the dead. As long as he is thus situated his relatives and friends are still attached to him, so that he still remains as it were in partial contact with the living. During this time the society is still suffering the ill effects of the death, and the process of readjustment by means of the customs of mourning is still taking place. At the end of it the dead man becomes completely absorbed in the spirit world, and as a spirit he has no more part in or influence over the social life than any other spirit, and the mourning is brought to a close by means of a ceremony.

x 182
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This ceremony has two parts. One is the recovery of the bones and their reaggregation to the society, a rite which we may regard as the final settling of the dead man in his proper place. All that is left of him, who was once a source of strength to the community, who had once—as it is here expressed—a social value, are the bones, his name, and the memory of him that his friends retain. We may suppose that the bones still have something of the value that originally attached to their owner, and indeed it is evident that they have, for after they are recovered they are affectionately treasured as relics by the relatives. By the end of the period of mourning the painful feelings aroused by the death have died down, so that the dead man is now the object only of memories that are pleasant, or, at the worst, bitter-sweet. The bones, then, are visible evidences of the fact that the society has recovered from the disruptive shock of the death, and this is why they are dug up as soon as the recovery is complete, or rather in order to complete it, and are thereafter treasured.

¹ The brakes formed by the cane (*Bido*) from the leaves of which the *boro* fibre is obtained seem to be regarded as lurking places of the spirits. The natives often speak of the *Bido-tee-lau* (*Calamus* leaf spirits).

A]

THE ANDAMAN ISLANDERS

451

ever of any animal substances. Some of the more important fibres, with their uses and the methods of preparing them, are mentioned below.

The bark of the *Hibiscus tiliaceus*, which occurs in the beach vegetation in all parts of the islands, provides the Andamanese with one of their most important fibres. By the coast-dwellers of the Great and Little Andaman Divisions it is used for making rope. In the Great Andaman Division the rope made from it was formerly used for making turtle nets, and is now used for the lines of turtle harpoons, and for hawsers to attach a canoe either to a stone used as an anchor or to a tree. No other fibre is used for these purposes. The *Hibiscus* rope does not seem to be much affected by salt water. The forest-dwellers of the Great Andaman have less use for rope, and at the same time are not able to obtain so readily the *Hibiscus* fibre. What rope they do have is therefore obtained from the coast-dwellers or is made of some other fibre. In the Little Andaman the *Hibiscus* is regularly used for rope. It is also used for the short cord by which the detachable head of the pig-arrow is attached to the shaft. In the Great Andaman a strip of the bark of the *Hibiscus* is used for the sling in which children are carried. Strips of the bark are worn by the women of the Little Andaman across their shoulders and breasts, as a sort of ornament.

To obtain the fibre young straight shoots of about 120 cm. in length are cut from the tree, those free from gnarls, and having a smooth bark, being chosen. The bark (inner and outer layers) is peeled off in strips of from 1.5 to 3 cm. in width. The inner or liber layer is then separated from the outer layer of the bark, is well scraped with a *Cyrena* shell and dried in the sun or over a fire. When dry it is worked in the hands until the various layers of fibre separate one from another. It is then ready to be made into rope. The fibre is interlacing, and when freshly made is a lustrous greyish brown. After exposure to salt water it turns a dark brown.

Mr E. H. Man, in his work on the Andamans, speaks of the *Melochia velutina* as providing fibre for rope. This is an error. The tree to which Mr Man refers is the *Hibiscus tiliaceus*. It is extremely common on the shores of the islands, as it is in many other parts of the tropics. It is very easily identified, as it bears its characteristic yellow flowers for a long time every year. There is no doubt whatever that this is the tree from which the natives regularly obtain the fibre for the rope they use in turtle-hunting and fishing and in their canoes. Other writers, following Mr Man, have repeated his error in calling it

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283

the *Melochia velutina*, for example Sir Richard Temple and Mr Portman. In Mr Portman's collection of photographs in the British Museum there is a good photograph of a *Hibiscus tiliaceus* tree labelled "*Melochia velutina*." I looked carefully in the Andaman jungles for the *Melochia velutina* but was unable to find it, and I am quite certain that in any case, even if it be found there, it is not commonly used by the natives for rope.

The bark of a number of other trees provides fibre of which the natives occasionally make use. Amongst these are one or more species of *Sterculia* (*S. villosa* ?), and a tree that I identified somewhat doubtfully as *Grewia laevigata*. The coarse fibre of the liber layer of these trees may be made into rope by the same method as that employed in dealing with *Hibiscus tiliaceus*. Very little actual use is made of them however. A fibre which looks very like that obtained from one species of *Sterculia* is frequently used by the natives of the Little Andaman (and also by the Jarawa) for their personal ornaments. Mr Portman says that this fibre is obtained from the *Celtis cinnamomea*.

A species of *Hibiscus*, which I believe is *Hibiscus scandens*, growing in the jungles and not along the shore, provides a fibre that is prized by the natives of the Great Andaman tribes for making string or fine rope. The fibre is less easily obtained than that of the *Hibiscus tiliaceus*, but owing to its quality (it is not so interlacing) is capable of being made into finer rope and string. It is often made into string and then used for making netted bags. I did not find this fibre in use in the Little Andaman, but as it is not very often met with even in the Great Andaman, it may possibly be used in the Little Andaman.

There are several species of *Ficus* in the Andaman forests, and the natives know that they can obtain fibre from the bark of these trees. The only one that is regularly made use of is the *Ficus lacifera*. The natives of the Great Andaman Division use the bark of this tree for making their personal ornaments. In the Little Andaman it is used for bow-strings. A fibre called in the Little Andaman *ulu*, and said by Mr Portman to be obtained from the *Ficus hispida*, is used in that island, and by the Jarawa, for making personal ornaments.

The *Gnecum edule*, a climbing plant that is fairly common, is used in all parts of the Andamans for thread and string. The creeper is cut into short lengths at the nodes and is dried for a few days. The outer layer of bark is then scraped off with a *Cyrena* shell, and the liber layer beneath it is peeled off in fine strips and these are made into thread or string. This string is used in the Great Andaman Division for making

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THE ANDAMAN ISLANDERS

453

netted bags and fishing nets. In the Little Andaman it is used for binding their arrows, as well as for netting.

The most valuable fibre of the Great Andaman tribes is that of the *Anadendron paniculatum*, which is used for string and thread and for bow-strings. Until recent times the method of preparing the fibre was not known to the natives of the Little Andaman, but they have now learnt it from the natives of the Great Andaman with whom they have been brought in contact, and the use of the fibre for string and thread is coming in amongst them.

The fibre is not easy to prepare. Long thin branches of the creeper are cut, which must be neither too young nor too old. To obtain these it is often necessary to climb up into high trees, for the *Anadendron* is a climbing plant. The creeper is cut into lengths of from 20 to 40 cm. The bark (inner and outer layers) is peeled off these in strips of from 7 to 10 mm. in width.* A strip of the bark is taken and placed on the thigh, inner surface downwards, and is scraped with a *Cyrena* shell until the outer bark is entirely removed and the fibres remain clean and separate. These are dried in the sun or over a fire and, if not needed for immediate use, are stored for future occasion. The fibre is fine and of a light greyish brown colour. In its qualities it somewhat resembles ramie fibre. It is extremely strong.

There are a number of other trees and plants that are known by the natives to afford fibre, but they are not used, or if they are, it is extremely rarely.

The Andaman jungles have a number of different species of *Calamus*, and the canes or rattans of these are put to all sorts of uses, such as the making of baskets, the lashings and furnishings of canoes, and in building huts. In the Little Andaman one species of cane is used to provide the fibre for women's belts. The outer skin is removed and the remainder of the cane is divided into fine strips or threads. A bundle of these tied together constitutes the belt worn by the women of the Little Andaman. The outer sheath of the leaf-stem of the *Calamus tigrinus* is used by the natives of the Great Andaman Division for making mats. Lengths of the leaf-stem are cut and the outer skin is removed in strips of about 3 to 5 mm. in width. The still adhering pith is removed with a *Cyrena* shell, and the strips are dried in the sun and then made into mats.

The leaf-stem of a species of palm is cut while green and is then shredded into long strips. The fibre thus obtained really consists of the leaflets of the young unopened leaves of the palm. It is used in the

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Little Andaman to make the tassel that women wear over the pudenda. The women of the North Andaman formerly wore a tassel of this fibre, but have now discontinued the custom, since their contact with the South Andaman. In the Great Andaman tribes this material has important ceremonial uses. It is called *kepo* in Aka-Jeru and *ara* in Aka-Bea, and has been frequently mentioned in this volume. A tassel of the fibre is suspended near the grave of a dead person and at the entrance of the village at which the death took place. In the North Andaman a suspended cane hung with a fringe of the fibre is erected for the peace-making ceremony. (See Plate xix.)

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Two plants that were not identified are used in the North Andaman for making baskets. The methods of preparing these will be described later.

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The natives of the Great Andaman Division make use of the leaves of the *Pandanus Andamanensium* for making belts for women and ornaments that are worn on ceremonial occasions. These leaves do not seem to be used in the Little Andaman.

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The pods of one or more species of *Dendrobium* are collected by the natives of both Great Andaman and Little Andaman. They are roasted in the fire, until the outer skin turns a bright yellow, and this is torn off in strips and used for ornamenting nets, baskets, rope, etc.

824

The above description includes all the more important vegetable substances used by the Andamanese for their rope, string, netting, and basket-work. There are many other substances that they might use if they wished, of the properties of which they are fully aware. Their knowledge of the trees and plants of the forests and of the peculiar properties of each is very extensive. They themselves say that they use only those that best serve their purposes.

283

The Andamanese make rope and string or thread, but in all cases it is only two-ply. Rope is made by men only, and is used for the lines of turtle harpoons, and was formerly used for turtle nets. The ropes made from *Hibiscus* fibre are very strong and durable, being quite as good as the best hempen ropes of the same diameter. In rope-making the *Hibiscus* or other fibre (*Sterculia* or *Grewia*) is taken and twisted into a long strand, either with the fingers, or on the thigh by rolling beneath the palm of the hand, short lengths of fibre being added until a single twisted strand of sufficient length and uniform thickness is produced. The middle of this strand is passed over a piece of wood held by the toes, one half of it being wound on to a reel (*kutobi* in Aka-Jeru) made by tying together crossways two pieces of cane or wood

4/2 Bamboo tongs are made by bending double a piece split from a bamboo, and cutting the ends to the required shape. They are used for lifting from the fire anything too hot to be taken in the hand and are chiefly of service in cooking.

Digging sticks are made from various kinds of wood, being simply pointed at one or both ends. These sticks are not as a rule preserved, but made as required with an adze and thrown away after use. They are used for digging up edible roots.

222 Hooks for picking fruit, such as the *Artocarpus*, are made by
227 attaching a small piece of wood to the end of a bamboo. Hooks for catching crabs are made from the wood of the *Rhizophora* by taking advantage of the natural form where a small branch joins a larger one.

352 The fan-shaped leaf of a *Licuala* palm is made use of in many ways.
824 The edges of the leaflets are sewn together with fine strips of cane, and the sewn leaf is then used either as a sunshade or umbrella for protection from sunshine or rain, as a sleeping mat if the proper article be lacking, as a screen to make the roof or sides of a hut more wind or rain proof, as a wrapper for making objects of all sorts into bundles, and as a winding sheet for a corpse.

373 Torches are made from resin, which is broken into small pieces and wrapped up in leaves of a species of *Crinum* (? *lorifolium*), a few pieces of smouldering charcoal being added before it is tied up. The torch is then parcelled by marling with a strip of cane or a length of some tough creeper. These resin torches are used in turtle-hunting and fishing expeditions on dark nights.

Other torches are made of fragments of rotten *Dipterocarpus* wood. They are used only in the village.

PERSONAL ORNAMENT; GREAT ANDAMAN.

291 At the present time the natives of the Great Andaman Division obtain from the Settlement of Port Blair cloth which both men and women wear round the loins. They also obtain beads from which they make necklaces.

The following is a list of the various personal ornaments made by the natives of the Great Andaman Division, and worn by them.

Rope girdle. Every man wears some sort of girdle round his waist, and this was formerly the only object that was constantly worn by men. The girdle may consist of a length of rope of *Hibiscus* fibre or a length of ornamental cord made by wrapping the yellow skin of

000 possible are required before we can speak with certainty regarding the extent, limits, and conditions of heredity among this race; but it has been noticed that, as a general rule, they have excellent memories, especially on those subjects in which the intellects of their ancestors have been consciously or unconsciously exercised or cultivated in the savage state. The following passage will afford an illustration of the intelligence displayed by these people on such subjects. It is taken from the late Mr. Kurz's Report on the Vegetation of the Andaman Islands:—

•824 "While I was in the Andamans I was in the habit of consulting people (convicts) from the most different parts of India for the native names of the plants. As a general result, I may state that the Burmans were best acquainted with the flora of the Andamans, but they are by no means equal to the Andamanese in accuracy and certainty of determination. While the Burmans were obliged continually to cut into the bark to recognise the trees, the Andamanese readily gave their names, and I could rely upon their statements, which was not the case at all with those of the Burmese."

787 16. Instances have been observed among them of individuals
158 possessing strong wills and vivid powers of imagination: as a race they do not appear to be subject to trances, illusions, or somnambulism, but, like many other savages, they place implicit faith in dreams, shaping their conduct in superstitious conformity to the warning or advice supposed to have been conveyed therein.

791 **Magic and Witchcraft.**—1. There are, however, certain indi-
754 viduals in these tribes, known as *ôko-pai-ad-* (lit., a dreamer),
431 who are credited with the possession of supernatural powers—such as second sight, expressed by the term *âramû'ga-tâ'rabanga-*,—and of a mysterious influence over the fortunes and lives of their neighbours. It is thought that they can bring trouble, sickness, and death upon those who fail to evince their belief in them in some substantial form;¹ they thus generally manage to obtain the best of everything, for it is considered foolhardy to deny them, and they do not scruple to ask for any article to which they may take a fancy.

791 2. These quasi-seers are invariably of the male sex, and it
431 sometimes even happens that a young boy is looked upon as a "coming" *ôko-pai-ad-*, their position being generally in the first instance attained by relating an extraordinary dream, the details

¹ This reminds one somewhat of the disease makers of Tauna (New Hebrides), who are supposed to cause disease and death by burning *nahak* (rubbish, principally refuse of food), and who are propitiated by continual presents. The practice of burning beeswax, in order to cause annoyance to an enemy, will be mentioned under "Superstitions," paragraph 13.

372

Fire.—1. It would seem that the Andamanese, like the quondam aborigines of Tasmania, have always been ignorant of the art of producing fire.

2. The assertion¹ that these tribes when first discovered, assuming that this refers to either the second or ninth century,² were ignorant of the use of fire may or may not be correct; but if any faith can be placed in the traditions held by them on the subject, their acquaintance with it dates from no later period than the Creation!³

3. The most satisfactory conjecture as to the source whence they first obtained fire appears to me to be based on the fact of there being two islands attached to the group, one of which (Barren Island) contains an active volcano, and the other (Narkandam Island⁴) a now extinct one.

4. Being strangers to any method of producing a flame, they naturally display much care and skill in the measures they adopt for avoiding such inconvenience as might be caused by the extinction of their fires.

5. Both when encamped and while journeying, the means employed are at once simple and effective. When they all leave an encampment with the intention of returning in a few days, besides taking with them one or more smouldering logs, wrapped in leaves if the weather be wet, they place a large burning log or faggot in some sheltered spot, where, owing to the character and condition of the wood invariably selected on these occasions, it smoulders for several days, and can be easily rekindled when required. Decayed pieces of the *Croton argyratus*, and two species of *Diospyros*,⁵ and a fourth, called by them *chôr*-, but not yet identified, are chiefly used as fuel. As may be inferred, all labour of splitting and chopping is saved, as it is only necessary

¹ Vide Brown.

² Vide Part I (commencement).

³ Vide post "Mythology," paragraphs 5 and 6.

⁴ Regarding this island, which is sometimes shown as Narkandam, Colonel Yule, in his "Marco Polo," writes as follows:—

"Abraham Roger tells us that the Coromandel Brahmins used to say that the *Rakshasas* or Demons had their abode 'on the Island of Andaman, lying on the route from Pulicat to Pegu,' and also that they were man-eaters. This would be very curious if it were a genuine old Brahminical *Saga*; but I fear it may have been gathered from the Arab seamen. Still it is remarkable that a strange weird looking island, which rises, covered with forest, a steep and regular volcanic cone, straight out of the deep sea to the eastward of the Andaman group, bears the name of *Narkandam* in which one cannot but recognise नरक, (*Narak*), 'Hell.'

Can it be that in old times, but still contemporary with Hindu navigation, this volcano was active, and that some Brahmin St. Brandon recognised in it the mouth of Hell, congenial to the *Rakshasas* of the adjacent group?"

Colonel Yule adds: "I cannot trace any probable meaning of Andam, yet it looks as if *Narak-andam* and *Andam-ds* were akin."

⁵ Bastard ebony or marble wood.

251 implement, and all take a share in the feast.¹ Meat thus prepared will keep good for several days.

252 32. I alluded just now to their method of preparing the seeds
251 of the *Semecarpus* and *Artocarpus chaplasha* for consumption during the rains; it is as follows:—The outer husk, or skir, having been removed, a quantity of the fruit is placed on a wooden platter, and each person present renders assistance by partially sucking (!) the various pieces, which, after this preliminary process, are half boiled in water, and then wrapped up in large bundles of leaves, and buried in moist soil; no mark is made over the spot, but there appears to be no fear of forgetting it, though several weeks usually elapse before the monsoon breaks, and these decaying deposits are dug up, when the smell, as may be supposed, is most offensive to all but those who are to the manner born; by them, however, strange to relate, it is evidently highly appreciated. The next stage through which the seeds have to pass consists in freeing them in water from the decaying matter, and drying them in the sun, or over the fire, where they are left in nets (*châpanga*-²) or leaves until required for use, when they are again baked. With this exception no food is dried in the sun, nor is anything salted or intentionally smoked, though this last cannot fail to be, to some extent, the result of their mode of storing food, as described in the previous paragraph.

222 33. Besides the various fruits already mentioned as in season
137 during the dry months, yams and honey are very abundant; as
824 their method of treating both fruits and yams has been already
825 described, it now remains for me to notice the ingenious way in which they procure honey, and to name the special trees which, flowering in succession, afford ample material from whence the bees produce a more or less abundant store.

34. At the close of the monsoon one of the large jungle trees, called by them *râr-* (*Eugenia* sp.), comes into bloom, and though no honey is made from its flowers, it is said to act beneficially on the bees as a purgative, and to prepare them for the commencement of the honey season.³ The *lê-kera-* (*Leguminosa* sp.), blossoming a little later, is the first honey-yielding flower; the *dâm-la-*,⁴ *chî'lib-* (? *Diospyros densiflora*), *ô-ro-* (*Chickrassia tabularis*), and *châ-dak-* (*Rubiacea*) coming next into season, enable the bees to produce large combs, but the finest are found after the *pâ-* (*Semecarpus*), *tâ-jî-* (*Sterculia* (?) *villosa*), *yê-re-* (*Sterculia* sp.), *jî'dga-*,⁴ have

¹ Vide post "Hunting and Fishing," paragraphs 30 and 31.

² Vide Appendix B, item 22.

³ *Hâ'ê-râ-rê*, (to) clean.

⁴ The botanical names of these have not as yet been ascertained.

blossomed: this is considered the height of the honey season, and is called *lad'u chāu*.¹ It appears that on moonlight nights just at this time the bees consume a great portion of their honey, so that the "junglees" declare it to be useless to go for combs, either by day or night, until the moon has sensibly waned.

35. When about to make a raid on the hives, the Andamanese procure a certain plant, believed to be of the *Alpinia* species, called *jī-ni*, and having stripped off the leaves, chew the stem and smear the essence thus extracted over their bodies; the mouth is also filled with the same juice, and thus armed *cap-à-pie* they proceed to disperse the bees, who, on attempting to attack them, are at once repelled by the obnoxious odour of the *jī-ni*, emitted in a fine spray from the mouths, and also attaching to the persons of their despoilers, who sometimes make further use of the chewed stalks of the offensive plant in driving off the last remaining defenders of the hive.

36. Small combs² of both the white and black honey are commonly obtainable till about September—i.e., so long as the *Dipterocarpus lœvis*, the *Pterocarpus dalbergioides*, and a few other trees continue to blossom.³

37. While I had charge of the homes (and probably ever since), a large sum was annually realised by the aborigines towards their support from the sale of honey thus obtained to the free residents at Port Blair. So much indeed did they collect that we were able to store it in barrels and bottles, and generally found we had sufficient to meet all demands until the approach of the following season.

Tabu.—1. Besides the articles of food from which all abstain during the *ā-kā-yāp*,⁴ we have seen that there are certain fruits, edible roots, &c., which, in supposed obedience to *Pū-luga*'s commands, are not gathered at prescribed seasons of the year,⁵ and that mourners⁶ (*ā-kā-ōg*-) also deny themselves by refusing to partake of their favourite viands until after the *tī-tō-latnga*;⁷ but beyond these restrictions, which are of general application,

¹ Vide Appendix II.

² The combs produced from the blossoms of the under-mentioned trees—i.e.: *tā-tib*- (*Croton argyrateus*), *bī-bū*- (*Terminalia* (?) *citrina*), and *dāl'ya*- are much less plentiful, and they are smaller; this is also found to be the case with those made from the *chū-lānga*- (*Pterocarpus dalbergioides*), *mō-nag*- (*Messua ferrea*), *ē-mej*- (*Terminalia bialata*), *jā*- (*Gluta longipetiolata*), and *pūb*- (*Lagerstrœmia hypoleuca* (?) *regina*).

³ As they are not, in their savage state, in the habit of storing honey, they are without any but the black honey during a great portion of the year.

⁴ Vide ante "Initiatory Ceremonies," paragraphs 2 and 10.

⁵ Vide ante "Superstitions," paragraph 12.

⁶ If the mourners are *ē-rem-tā-ga*- they abstain from pork, and if they are *ārō-tō*- they abjure turtle (vide ante "Death and Burial," paragraph 4).

⁷ Vide ante "Death and Burial," paragraph 7.

138 E. H. MAN.—*On the Aboriginal Inhabitants*

411
[77] The only other weapon in use is the pig-spear (*ērdū'tngā*¹), which is of comparatively recent introduction, its adoption being due to the abundance of iron obtainable for some time past by the *bōjig-ngtji*- and other tribes near our settlement at Port Blair.

6 To an untrained eye no difference is noticeable in the appearance of the weapons of similar style and construction, but the aborigines are quick in detecting individual peculiarities in the manner of knotting the strings of bows, arrows, &c.²

7. As has been remarked by General Pitt Rivers,³ the bows of the Great Andaman tribes, especially those of the southern half, known to the islanders as the *bōjig karama*-, resemble those in use in Mallicollo, one of the New Hebrides, and in New Ireland, being of a "peculiar flattened S-shaped form, curved towards the firer in the upper part as held in the hand, and to a slight extent the reverse way at the bottom."⁴

• [824] 8. Except in the case of boys living on or near the coast, whose toy bows are often made of the *Rhizophora conjugata*, the wood of the mangrove is rarely, if ever, used, and the bamboo never,⁵ for they find that certain other trees,⁶ are more suitable for their purpose.

[824] 9. No whalebone or sinews are used for the purpose of imparting additional elasticity to the bow, and no evidence is forthcoming to show that they ever applied poison to their arrow or spear-heads—in fact, the only poison known to them appears to be the *Nuz romica*, and this they merely avoid as a noxious or useless plant.

10. It is true that certain passages in Dr. Mouat's book⁷ convey a contrary impression, for, from the observations made during his short trip round the islands, he seems to have entertained no doubt that these savages habitually applied poison to their arrow-heads;⁸ but, in the sense in which I understand his

¹ Vide Appendix B, item 8.

² For an example of this *vide ante* "Communications," &c., paragraph 6 (foot-note).

³ Vide Journ. Anthrop. Inst., vol. vii, p. 440.

⁴ In the ethnographical department of the museum at Maidstone, I have lately observed a bow from Banks Island (New Hebrides), which bears a striking resemblance to the commonest form of the peculiar *bōjig* bow, for sketch of which see Plates II and VI.

⁵ "Their weapons are bows and lances of iron-wood. The former are bamboo. . . ." (Grant vol. ii., p. 378.) [Their spears, at least those of Great Andaman, have never yet been seen by us made of iron-wood.—E. H. M.]

⁶ Vide Appendix B, item 1.

⁷ Pp. 324 and 339.

⁸ It may be of interest too mention in this place a curious alleged fact which has been brought to my notice by the petty officers and others connected with the homes, i.e., that the wounds which are inflicted now-a-days by the iron-headed arrows of the Andamanese are not so painful or so liable to fester as they were formerly, and this they attribute to the fact that, while it has always been the practice of these savages when sharpening their blades to

226 receding waves in the rocky hollows on the foreshore, and at the turn of the tide the men are usually to be seen standing up to their waists in water, or poling along the shore in their canoes, and shooting with their bows and arrows at the fish as they dart past.¹

• [824] 40. The seeds of a plant called *tôrog*² are sometimes crushed and thrown into creeks where fish and prawns are likely to be, as it has the effect of driving the fish from their hiding place, and leads to their easy capture in hand-nets held in position for the purpose.

41. In former times, and even now in the more distant communities, large nets of about 80 feet in length and 15 feet in depth, with meshes of several inches in diameter, were spread at the mouths of creeks for catching turtles and big fish; but since iron has been so easily obtained and canoes and harpoons have become more numerous, the *dryto* usually capture their turtles, &c., by these means in preference to the older method, which entailed much labour in the manufacture. The following is the mode employed when nets are used:—one side is sunk by means of stones, and the other is kept up by floating sticks called *rd'ag*, of the *al'aba*³ tree (*Melochia velutina*), to each of which a cane-leaf is attached; the ends are then drawn across such parts or creeks into which fish may easily be driven by beating the water with the bamboo shafts of their turtle spears. When any turtle or fish is driven into the net, the exact spot is at once indicated by the disturbance of one of the logs, with its tuft of leaves, whereupon they generally find little difficulty in despatching their captive.

502 Navigation.—1. It is a subject of surprise to all who, during the past fifteen or twenty years, have come in contact with the Andamanese, and have observed the style and capabilities of their canoes, to read the high encomiums that have been bestowed on the skill with which they are constructed, and to find that they are credited with such extraordinary speed as to distance easily a cutter, as well as a gig, manned respectively by picked crews of blue-jackets and Chinamen,⁴ the former of whom "said, in their own usual exaggerated style of remark, they nearly killed

¹ The results obtained by the men are said to be inferior to those obtained by the women and children, but this is probably due to the large quantity of molluscs and crustaceans usually collected in the hand-nets.

² A species of *Lagerstrœmia*. This is similar to the custom among the Gaboon tribes described by Dr. Brown, who mentions that "at the Gaboon it is the leaves of a pretty leguminous plant, with yellow flowers . . . which is used. So rapid is the poison that if a handful of the bruised leaves are thrown into a pool the fish will almost immediately die and come to the surface."

³ Vide ante "Superstitions," paragraph 7, and post "String," paragraph 1.

⁴ Vide Moust, pp. 315-321.

285

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Basket-work.—1. Among the few remaining industries of these savages on which I have a few words to say is that of basket-making: these baskets are invariably made from the best specimens of the common cane called *pīdga*- which is similar to, if not identically the same as that ordinarily used by our basket-makers and chair-menders.

2. After removing the leaves, part of the cane is cut into lengths of $3\frac{1}{2}$ or 4 feet, and the "skin" or cuticle is shredded off into strips $\frac{1}{4}$ or $\frac{1}{2}$ inch wide; the remainder of the cane is split into as long pieces as possible, and the "skin" is cut into strips somewhat narrower than the others; shorter lengths of the canes form the "ribs" or "stakes," in and out of which the strips are woven or "slewed."

3. In order that the basket may stand steadily¹ it has always a "kick" like our bottles, and to construct this is of course the first object; when the stakes have been firmly secured in the centre, they are placed over a small hole scooped out of the ground, and the heel of the basket-maker is placed on them while the weaving is commenced; when it has been carried off to a breadth of 2 or 3 inches the heel is removed, the canes reversed, and the work proceeds in the ordinary way until within an inch of the required depth, where, for the sake of appearance, the interweaving is omitted: the handle is then formed out of a strip of the bark of the *Melochia velutina* (*alaba*-); stripes of *tā-la-ōg*- and *kōi-ōb*- are usually added by way of ornamentation;² no method of rendering them waterproof is known. Baskets are not converted into moulds for pottery; but sometimes, when travelling, earthen vessels are placed in a loose wicker casing, in order to protect them, and at the same time to facilitate their removal.

4. There is a marked difference³ between the baskets made by the five *bō-jig* tribes and those manufactured by the *yē-rewa*-; with the latter the work is more neatly finished, and the opening is small instead of being wide, as is the case among the former.⁴

5. Baskets are used for all sorts of purposes by men, women, and children, and, considering the rough usage to which they are subjected, last fairly well, for they seldom require to be renewed for several months: they are not used as strainers or colanders, the fine net (*chā-pingā*-) serving this purpose.

String. *Ac.*—1. The Andamanese do not produce their stout cord (*bō-tma*-), string (*bō-tma-lā*-), or twine (*mō-la*-), from animal

¹ The *jārawa*- baskets are generally small at the base, and having no "kick" are not usually able to stand unless placed between logs of wood or other objects.

² The rim of these baskets is formed of a piece of *Cearia micrantha* (*ōrta-tāt*-) round which one or more strips of the cane above described are neatly twined.

³ The reader is referred to the excellent sketch of an Andamanese basket (vide Plate VII, fig. 17).

⁴ Vide Plate IX, fig. 14.

283
824

substances, but from the bark fibres of trees and shrubs, known to them by the names of *al'aba-* (*Melochia velutina*), *pī'lita-* (*Gnetum edule*), and *yō'lba-* (*Anadendrum paniculatum*). The first of these is found growing near the shore, where it seldom attains a height of 20 feet; it is from fibre obtained from the bark of this tree that their cinctures (*bētma-bā*), harpoon-lines (*bētma-*), and turtle-nets (*yō'to-tē'pinga*) are manufactured. When any of the articles have to be made or replaced, it becomes the duty of some member of the male sex to procure a smooth clean branch—one which is also fairly straight and free from gnarls being preferred—and to remove the bark; the cellular integument is next scraped with a *Cyrena* shell (*ū'ta-*) until the fibres which it encloses are laid bare: these are then placed in the sun, or before a fire, to dry; when ready for use (*i.e.*, when thoroughly dry) the ropemaker ties several of the filaments to his toe and proceeds with his work by winding another strand spirally round them, adding a fresh length from time to time. When special strength or durability is needed, a coating of black wax (*tō'bul-pūd-*) is finally applied. The yarn thus produced is termed *bētma-mai'anga-*. When a long piece of this has been made (say 30 yards), a large portion of it is wound round the two cross-sticks forming the *kū'tegbo-*.¹ The operator, having then seated himself with legs outstretched, places a stick or cane between the big toes of his feet, and over this bar he passes the *kū'tegbo-*, thus enabling him to wind it continuously round the other half-length of the yarn, which, for convenience sake, he has previously placed by his right side, so that it is drawn behind his neck and over his left shoulder as the work proceeds. After the first foot or so of the cord has been thus made, the operator holds or clutches that portion with his toes. It will be understood that in employing the *kū'tegbo-* in the above manner, it becomes necessary at frequent intervals to unwind a certain quantity from that implement, in order to enable the work to progress. The cord thus made is called *bētma-*, and this it is of which their harpoon-lines and turtle-nets are made. The *bētma-bā-* (lit., small *bētma-*), mentioned above, is made in the same way, but of course less fibre and a smaller *kū'tegbo-* are used.

2. For making hand fishing-nets (*kūd-*) and sleeping-mats (*pār'epa-*),² the fibre of the *Gnetum edule* (*pī'lita-*) is used; in the preparation and manufacture of these, women exclusively are concerned; the first process is to cut a number of the trailers into lengths which are determined by the distances between the knots and joints: these are held against the

¹ "The cord (used for large nets, &c.) possesses the valuable quality of hardening in the water" (*vide* Mouat, p. 326).

² *vide* Appendix B, item 65.

283 thigh, and the cuticle is removed by means of the *Cyrena*
 286 shell; the underlying white fibres are left for a week or ten days in the sun until thoroughly dry, when they separate readily, and are easily worked up into fine or coarse twine, as may be required by the manipulator.

283 3. The fibre of the *Anodendron paniculatum* (*yōlba-*) is
 824 chiefly used for making bowstrings, reticules (*chāpanga-*), necklaces, and twine for arrow fastenings; its manufacture is accordingly not restricted to either sex. When the bark has been stripped off, in lengths of 8 to 15 inches, the operator presses the inner portion upon his (or her) thigh, and then rapidly but carefully passes a *Cyrena* shell along the outer surface until the fibres alone remain; these are then, as in the previous cases, dried in the sun, or before a fire; when a sufficient supply of material has been thus obtained, it is made into fine twine or, if not required for immediate use, wrapped in leaves in order that it may be kept fresh. Although apparently free [262] from any obnoxious properties, this plant, as well as the fibres obtained therefrom, until it is converted into twine or bowstrings, is believed by the Andamanese to render the flesh of a turtle uneatable if placed near it; consequently this meat, when inadvertently so contaminated, is thrown away; further, no one who has been collecting *yōlba-*, or who has been engaged in preparing the fibre, can (for a period extending to three days) be allowed to cook a turtle, or even to accompany a party engaged on a turtle expedition! [825] Sharks and other dangerous fish are also credited with having so wholesome a horror or detestation of this plant (and also of *Cyrena* shells!) that the aborigines are in the habit of attaching some *yōlba-*, or *Cyrena* shells (or both), to their cinctures as a safeguard when about to swim in parts believed to be infested by these creatures.

[531] 4. The yellow skin of the root of a certain orchid, called *rā-*, which is commonly found on trees near the shore, is often seen intertwined with their *yōlba-* string, in personal ornaments, and occasionally in the decoration of weapons, but where strength is a requisite it is of course not used.

5. Bowstrings of *pīlita-* and *yōlba-* are made in the manner described in the manufacture of *alāba-* rope, but ordinary string is made in the following manner:—a few of the prepared filaments are twisted into a yarn on the thigh with the palm of the hand; when two lengths have been obtained, they are together rolled into string of the desired strength, and beeswax is smeared over it to make assurance doubly sure.

6. Twine, made from the *yōlba-*, is used in netting the fine chains (*rāb-¹*) and the reticules (*chāpanga-²*); for turtle-

¹ *Hide, ante* "Death and Burial" paragraph 5, and Appendix B, item 42.

² *See* Appendix B, item 22.

APPENDIX H.

LIST OF *Proper Names*, TOGETHER WITH A LIST OF THE "*Flower*" Names BORNE BY YOUNG WOMEN DURING MAIDENHOOD, AND UNTIL THEY BECOME MOTHERS, AND A LIST OF THE VARIOUS *Seasons*.

Proper names (common to both sexes).		"Flower" name.	Name of tree (or insect) in season.	Names of the various minor seasons.	Names of the principal seasons.	Remarks.
.ba'ta	.kāt'ola	.chā'tipa ...	.lē'kera- ...	.lē'kera-wdb- ¹ ...	.pā'par-, also .pā'par-wdb-	The " <i>pā'par</i> -" commences about the middle of November, and ends about the middle of February. It comprises the cool season. ¹ " <i>wdb</i> " signifies "season."
.dō'ra	.lō'ra		.chā'tip- ...	.chā'tip-gdb- ...		
.bē'rebī	.lī'pa	.mō'dā ...	.pā- ...	.pā-wdb- ...		The " <i>yē're-bō'do</i> -" comprises the summer and autumn of the year. Honey is abundant at the commencement of this season, during the whole course of which the principal fruit trees are in bearing. This season lasts about three months, viz., till about the middle of May. ² Lit., season of abundance. ³ This period is called " <i>lad'a-chāu</i> -" (dirty body) owing to their practice of smearing their persons with the sap of a plant (<i>jī'ni</i> -) when engaged in removing a honeycomb from a hive swarming with bees.
.bī'a	.lō'kola		.jōr- ...	.jōr-wdb- ...		
.bī'elo	.mō'dā	.dō'ra ...	.dō-ro- ...	.dō-ro-wdb- ...	.yē're-bō'do-, also .rāp-wdb- ³	
.bī'ra	.mō'dola	.jī'dga ...	.jī'dga- ...	.jī'dga-wdb- ...		
.bī'rolo	.āgō'ngula		.tā'tīb- ...	.tā'tīb-wdb- ...		
.bā'ibula	.nīd'li	.yē're- ...	.yē're- ...	.yē're-wdb- ...		
.bā'ila	.pā'ila		.bā'ja- ...	.bā'ja-wdb- ...		
.bā'rāga	.pā'tya	.pā'taka ...	.pā'tak- ...	.pā'tak-wdb- ...		
.chā'rūla	.pō'wola		.bā'la- ...	.bā'la-wdb- ...		
.chā'tla	.pā'nga	.rā'che ...	.rā'che- ...	.rā'che-wdb- ...		
.dō'ra	.lī'a		.chā'dak- ...	.chā'dak-wdb- ...		
.pō'tat	.pī'ela	.chā'gara ...	.chā'tanga- ...	.chā'tanga-wdb- ...		
.lī'ra	.lō'tā	.chā'rōpa ...	.bā'lu- ⁶ ...	.tō'puga-wdb- ...		
.lī'rolo	.lū'ra		.chā'rōp- ...	.chā'rōp-wdb- ...		
.jā'ro	.wō'i	.chē'nra ...	.ōi'yam- ⁷ ..	.ōi'yam- lō'puga-wdb- ...		
.jō'pōlo	.wōi'chola		.chē'nara- ...	.chē'nara-wdb- ...		
.lā'la	.wō'loga	.yā'lu ...	.rā'r- ...	.rā'r-wdb- ...		
.lā'ya	.yē'ga		.yā'lu- ...	.yā'lu-wdb- ...		

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551
881
821
824

APPENDIX L

LIST OF SOME OF THE TREES AND PLANTS IN THE ANDAMAN JUNGLES.

137
824 •
222

Andamanese name.	Botanical name. ¹	Remarks.
á-bnga- (a)	Dillenia pilosa.	
ain'ya- al'aba- }	Dipterocarpus a'atus	(Burm.) <i>Kanyin agi.</i>
ám- (a) (e)	Melochia velutina	(vide Appendix B, item 66)
ápara- (d) (k)	Calamus, sp. No. 1.	
Also ábad-	Ptychosperma Kuhlíi	
áraga- .. ..	.. .. .	{ (Hindi.) <i>Palawa.</i> (Burm.) <i>Bí-bia.</i>
Árain- (m)	Dipterocarpus laevis	(Burm.) <i>Kanyin byu.</i> Gurjon oil tree.
bad'a- (a)	Rhizophora conjugata	(Burm.) <i>Byñma.</i>
bad'ar- (a)	Sometia tomentosa (?)	
ba'la- (a) (b)	Terminalia procera	(Burm.) <i>Bambway byu.</i>
bá'ja- (y)	Sterculia (?) villosa	(Burm.) <i>Sabu-bani.</i>
bá'lak- .. ..	.. .. .	{ Jide Part II, "Religious Beliefs," paragraph 19.
bal'ya-	Caryota sobolifera.	
bá'ratu- (c)	Cerriops Candolleana	(Burm.) <i>Madamá.</i>
bá'taga- (u)	Natsatium herpestes.	
bē lu-	Albizzia Lebbeck (?)	(Burm.) <i>Kñk'ko</i>
bēma-	Glycosinis pentaphylla.	
bērekád-	Claoxylon affine (?)	
bērewi-	Terminalia (?) citrina).	
bī-bi-	Planchonia valida	(Burm.) <i>Bambway ngt.</i>
bī-riga- .. ..	.. .. .	
bīrtát-	Sophora sp.	
bī'tim-	Calamus sp.	Ground rattan.
bōl- (r)	Claoxylon sp.	
bō'ma-	Myristica longifolia	{ (Hindi.) <i>Jaiphal.</i> (Burm.) <i>Zá'dipho.</i>
bō'rowa- (u)	Sabia (?)	
bō'to-kó'ko- (v)	Ancistrocladus extensus(?)	
būb-	Diospyros (?) nigricans..	{ Bastard ebony, or mar- ble wood (superior variety).
bū-kura- (r)	.. .. .	
būr- .. ..	.. .. .	
bū'tu- .. ..	.. .. .	{ Extensively used in the manufacture of arrows. (Hindi.) <i>Badám.</i>
cháb- (a)	.. .. .	
chádak-	Rubiaceæ.	
chāge-	Paratropia venulosa.	
chai- .. ..	.. .. .	Bows made from this tree.

¹ It has been chiefly owing to the kind assistance afforded by Dr. G. King, Superintendent of the Botanical Garden, Howrah (near Calcutta), that I have been able to ascertain the botanical names of so many of the trees in this list.

Andamanese name.	Botanical name.	Remarks.
137 824 222 chāj- (a) (b)	<i>Semecarpus anacardium</i>	(Hindi.) <i>Bildwa</i> .
chā kan- (b)	<i>Entada pursaetha</i> .	
chā langa- (q)	<i>Pterocarpus dalbergioides</i>	{ (Hindi.) <i>Siru</i> . (Burm.) <i>Padduk</i> .
chām- (j)	{ <i>Areca laxa</i> of Hamilton (a variety of <i>Areca tri-</i> <i>andra</i>).	
chā mti-	<i>Cynometra polyandra</i> .	
chàng ta-	<i>Calamus</i> sp.	{ Leaves used in thatching huts, and for making the warning wreaths round a grave or de- serted encampment.
cháp-	<i>Terminalia</i> sp.	
chā to-	<i>Albizzia Lebbeck</i> (?) ..	{ (Hindi.) <i>Siris</i> . (Burm.) <i>Tsit</i> .
chāu ga-yū anga-	<i>Hopen odorata</i>	(Burm.) <i>Thingám-byū</i> .
chē nir-	<i>Leca sambucina</i> .	
chī lib-	<i>Diospyros densiflora</i> (?)	
chō ad- .. ..	.. ..	(Burm.) <i>Māukarāung</i> .
chō bal-	<i>Atalantia</i> sp.	
chō ngara- (a) .. ..	.. ..	
chō pa- (a)	<i>Leguminosæ</i> .	
chōb- (a)	<i>Calamus</i> sp. No. 2 ..	{ The fruit somewhat re- sembles a medlar in flavour.
chō kaga-	<i>Goniothalamus Griffithii</i> .	
chō lij-	<i>Hypolytrum trinervium</i> .	
chōr- (i)	<i>Celtis cinnamomea</i> .	
dā kar-tā la-	<i>Hydnocarpus</i> (?) ..	{ (Hindi.) ? <i>Lāl chini</i> . (Burm.) ? <i>Chāndu</i> .
dē debla-	<i>Xanthophyllum glaucum</i> .	
dōd-	<i>Myristica Irya</i>	{ Sometimes used for paddle making.
dū gōta- (a) (f)	<i>Mimusops Indica</i> (or ? <i>littoralis</i>)	{ (Hindi.) <i>Mōra</i> . (Burm.) <i>Kapāli thit</i> .
dū mto- (p)	<i>Guetarda speciosa</i> .	
dū mla- .. ..	.. ..	(Burm.) <i>Fishūm</i> .
dū ra-	<i>Barringtonia racemosa</i> .	
elētā la-	<i>Terminalia bialata</i> .	
ē mej- (b) .. ..	.. ..	Wild plantain.
eng ara- (a)	<i>Strychnos nuxvomica</i> .	
ē repaid-tāt- gā chā- .. ..	.. ..	
gad-	<i>Calophyllum spectabile</i> .	
gel dim- (a)	<i>Leguminosæ</i> sp.	
ger eng- (n)	<i>Bombax malabaricum</i> ..	{ (Hindi.) <i>Sembal</i> . (Burm.) <i>Didu</i> .
gū gma-	<i>Trigonostemon longifolius</i>	{ Leaves used medicinally as a febrifuge.
i til- (b)	<i>Pandanus</i> (?)	
jā- (a)	<i>Gluta longipetiolata</i> ..	(Burm.) <i>Thip-pyū</i> .
jā la-	<i>Rubiaceæ</i> .	
jāng ma- (a)	<i>Stephania hernandifolia</i> .	

137
824
222

Andamanese name.	Botanical name.	Remarks.
jɪ'dga		
jɪ'ni- (a)	Alpinia sp.	{ (Vide Part I "Medicine," para. 4, and Part III, "Food," para. 35.) (Burm.) Nubbhā.
jór-	Odina Wodier	
jū'laɪj- (b)	Dendrobium umbellatum	
jū'mu- (a)	? Bruguiera gymnorhiza, or Rhizophora mucronata	(Burm.) Byūbo.
ká'daka-	Ficus hispida.	
kai- (a)	Mangifera sylvatica ..	Wild mango.
kai'ta- (a) (b)	Artocarpus chaplasha ..	{ (Hindi.) Kathar. (Burm.) Toung-peng.
ká.pa- (a) (h)	Licuala (probably peltata)	
kā'rad- (a)	? Sterculia (or Sanadara Indica)	{ The fruit contains a nut which after being sucked is broken, when the shell is eaten and the kernel thrown away.
kā'ega- (a)	Diospyros sp.	
kó'kan- (r)	Pajanelia multijuga.	
kón- (a)	Diospyros sp.	
kó'rtá-la-	Griffithia longiflora.	
kū'dnga-	One of the Rubiaceæ.	
kū'ara-	Dracontomelum sylvestre.	
lê'che-	Lactaria salubris ..	{ The fruit being large and round is often used as a moving target by being rolled along the ground or down a slope and shot at while in motion.
lê'kera-	Leguminosæ sp.	
lô'gai- (a)	Angiopteris erecta.	
lô'koma-		
má'chal-	Atalantia sp.	
mai' (x)	Sterculia (?)	(Burm.) Auk yenzā.
máng- (a) (b) (f) ..	Pandanus Andamanensis.	(Hindi.) Kōra.
mó'nag-	Mesua ferrea	{ (Hindi.) Sál. (Burm.) Gangua.
mót-	Heritiera littoralis.	
mū'tuin- (a)	Anacardiaceæ.	
ngá'tya- (a)	Bruguiera sp.	
ngē'bēr- (b)	Cycas Rumphii.	
nyū'raimo-	Ficus sp. No. 1.	
ō'dag-	Eugenia sp.	
ō'dorma- (a)		
ō'li- (a)	Ficus (probably macrophylla).	
ō'lma-		(Burm.) Thisunāwe.
ō'ro-	Chickrassia tabularis ..	(Burm.) Ngá'zu.
ō'ropa- (a) (b) (i) ..	Baccaurea sapida ..	{ (Hindi.) Khatto phal. (Burm.) Kanazo.
ō'rtá-tūt- (a) (g) ..	Uvaria micrantha.	
pū- (b)	Semecarpus (?)	(Burm.) Thikadoe.

Andamanese name.	Botanical name.	Remarks.
137 824 222 pai-ma-	Clausena (probably Wallichii).	
pai-tla-(b)		
páb-	Lagerstrœmia regina (Burm.) Pima. (? hypoleuca)	
pár-	Leguminosæ sp.	
pá-ra-		
pá-rad-	Gramineæ.	
pá-tag-	Meliosma simplicifolia ..	{ Leaves sometimes used as aprons by women (vide dô-gôta-). The kernel of the seed is eaten.
pê-dag-		
pê-li- (a)	Gnetum scandens.	
pê-taing-	Memecylon varians	
pî-cha- (i)	Diospyros sp.	{ Bastard ebony, or marble wood (inferior variety). Common cane.
pî-dga- (w) .. ..	.. ..	{ Fibre extensively used (vide Appendix B, item 65).
pî-lita-	Gnetum edule	
pî-rij-	Atzelia bijuga.	
pî-ti-	Derris scandens.	
pô- (t)	Bambusa Andamanica.	
pôr- (a)	Korthalsia (or Calamosagus) scaphigera.	
pô-rud-	probably Schmeidelia glabra	(Burm.) Kimberlin.
pû-a-	Bambusa	{ Used for making the shaft of the turtlespear, and for poling canoes.
pû-lain- (b)		(Burm.) Ngá-zu sp. No. 1.
pû-lia- (b)	Mucuna sp.	
pû-tka-	Memecylon (probably capitellatum).	
pû-ta- (b)	Nipa fruticans	Dhunny leaf palm.
râ-	Dendrobium secundum.	
râib-	Phoenix sp.	(Hindi.) Kajâr.
râr-	Eugenia (?)	{ (Hindi.) Chandan. (Burm.) Tau-ngim.
râu-	Ficus laccifera	{ (Hindi.) Bargat. (Burm.) Ngian.
rê-che-	Eugenia sp.	(Burm.) Mai ámbu.
reg lá-kâ châl-	Polyalthia Jenkinsii.	
rî-di-	Bambusa (?)	{ Used for making the shafts of the rô-tâ, tîrîdâ, and tô-lôd arrows.
rim- (s)	Celtis (or Gironniera) ..	(Burm.) Tingâm.
rô-toin-	Syzygium Jambolanum.	
tâ-langa-tât-	Antitaxis calocarpa ..	(Burm.) Gangua ngee.
tô-lapa-	Terminalia trilata (?) ..	{ (Hindi.) Châglam. (Burm.) ? Ngá-zu sp. No. 2, or Kûá na lin.

137
824
222

Andamanese name.	Botanical name.	Remarks.
tān-	Erycibe coriaca.	
tā'par-	Croton argyratus (Blyth)	(Burm.) <i>Chānuu</i> .
tā'tib- (a) (i) .. ..	.. ..	(Burm.) <i>Kiātālūng</i> .
tā- .. ..	.. ..	
tō'kal-	Amomum dealbatum (or sericeum).	
tōl-	Barringtonia Asiatica.	
tōp- .. ..	.. ..	(Burm.) <i>Pyū</i> .
tō'ta-	Menispermaceae.	
ū-d- (b)	Pandanus verus.	
ū-dala-	Tetranthera lanceifolia ..	{ (Fide Appendix B, item 76.)
ūj- (a)	Carapa obovata ..	(Burm.) <i>Penlōng</i> .
ūl-	Maranta grandis (or Phrynium grande).	
ū'tara-	Pterospermum acerifolium.	
wain'ya- .. ..	.. ..	{ (Hindi.) <i>Jungli saigon</i> .
wā'nga- .. ..	.. ..	{ (Burm.) <i>Pānu</i> .
wai'unga-	Podocarpus polystachia..	(Burm.) <i>Thil min</i> .
wi'lina-	Rubiaceae.	
yā'rla-	Sterculia sp.	
yātigi-	Anodendron paniculatum.	
yē're-r		
yō'lba-		

Additional Notes.

- (a) Fruit is eaten.
 (b) Seed is eaten.
 (c) Heart of the tree is eaten.
 (d) Pulpy portion of spathe is eaten.
 (e) Leaf stems used in manufacture of sleeping mats. Leaves used for thatching purposes.
 (f) Leaves used by women as aprons (*ōbunga-*); rotten logs used for fuel (see also "Superstitions," para. 8).
 (g) Stem of this plant used for the frame and handle of the hand-net (*kūd-*) (vide Appendix B, item 20).
 (h) Leaves used for thatching, for screens (vide Appendix B, item 74), for bedding, for wrapping round corpse, for packing food for journey, &c., and prior to cooking.
 (i) Rotten logs used for fuel.
 (j) Used in manufacture of the foreshaft of the *rā-tā*, *tīrlē-d*, *tōlbō-d*, and *chām*-arrows (vide Appendix B, items 2, 3, 4, 8), and sometimes also the skewer.
 (k) Leaves used for thatching and for building.
 (l) Leaves used in the manufacture of articles of personal attire (vide Appendix B, items 25 and 28).
 (m) The middle portion of rotten logs used for torches.
 (n) Rarely used for making canoes.
 (o) Used for adzes, sometimes for foreshafts of arrows, and for making children's bows.
 (p) Leaves used for flooring of huts.
 (q) Buttress-like slab roots used for making the sounding-boards employed when dancing.

- 137
824
222
- (r) Used for making canoes.
 (s) Resin used in manufacture of *ká-ngatá-búj*- (vide Appendix B, item 62).
 (t) Used in making the *gób*-, *kai*-, and sometimes the *tóg*- (vide Appendix B, items 82, 80, and 10)
 (u) Generally used for making paddles, and the leaves for bedding.
 (v) Used for making shaft of hog-spear.
 (w) Used for making baskets, the endings of adzes, turtle-spears, torches (*tó'ug*-), and of bundles; also for suspending bucs, for stitching cracks in canoes, and in thatching.
 (x) Used for making canoes; the resin is employed in making torches.
 (y) Used for making canoes, pails, and eating trays.

APPENDIX M.

LIST OF SHELLS AND SHELL FISH COMMONLY KNOWN TO THE ANDAMANESE.

136
825
222

Andamanese name.	Scientific name. ¹	Remarks.
<i>la- (r)</i> ..	<i>Monodonta</i> (? <i>labeo</i>).	
<i>ba- (a)</i> ..	<i>Dolpinula laciniata</i> .	
<i>ba- (a)</i> ..	<i>Pecten</i> (?) <i>Indica</i> ..	Scallop.
<i>chápata- (b)</i> ..	<i>Pteroceras chiragra</i> ..	Scorpion shell.
<i>cháu-ga-lót chū-kul-</i>	<i>Murex tribulus</i> .	
<i>chej-</i> (also <i>chō-la-</i>)	<i>Pinna</i> (? <i>squamosa</i>) ..	Bouquet-holder shell.
<i>hīd- (b)</i> ..	<i>Pinna</i> (?)	
<i>ch- ket-</i> ..	? <i>Conus eburneus</i> .	
<i>ca- rom- (a)</i> ..	<i>Scolymus cornigerus</i> .	
<i>ch- uai- (a)</i> ..	<i>Tridacna crocea</i> .	
<i>chū- (a)</i> ..	<i>Murex</i> (? <i>palma-rosa</i>) ..	Rose-bud shell.
<i>ē-la-</i> ..	<i>Perna ephippium</i> .	
<i>gar-en-</i> ..	<i>Dentalium octogonum</i> .	
<i>gar-en-ō-la- (a)</i> ..	<i>Turbo</i> (?) ..	Top-shell.
<i>ī-na-ō-la- (a)</i> ..	<i>Nassa</i> (? <i>tanina</i>) ..	Dog-whelk.
<i>jar-awa-la- (a)</i> ..	<i>Purpura Persica</i> .	
<i>jirka-ā-</i> ..	<i>Cyrena</i> (?)	
<i>jō-rol- (b)</i> ..	<i>Cerithidea telescopium</i> .	
<i>jū-ru-wā-lā-kā-bang-</i>	<i>Solen vagina</i> ..	Razor-fish.
<i>kā-nag-</i> ..	<i>Trochus</i> (? <i>obeliscus</i>) ..	
<i>kā-rada-</i> ..	<i>Arca granosa</i> .	
<i>kō-nop- (a)</i> ..	<i>Tridacna squamosa</i> .	
<i>lō-do-</i> ..	<i>Turbo marmoratus</i> ..	{ Is eaten by the <i>bat'awa-</i> tribe only.
<i>lō-ta- (a)</i> ..	<i>Cassia glaucus</i> ..	Helmet-shell.
<i>mā-lō- (a)</i> ..	<i>Venus</i> (?)	
<i>mā-rē- (a)</i> ..	<i>Venus meroë</i> ..	Pattern-shot Venus.
<i>mā-rē- (a)</i> ..	<i>Patella variabilis</i> ..	Rock-limpet.

¹ To the Rev. T. L. J. Warneford, formerly chaplain at the Andamans, I am indebted for the classical names of many of the shells in this list.

(a) denotes those that are cooked and eaten.

(b) denotes those that are cooked and eaten by married persons only.

now follow them, often ignoring their original significance and symbolism. Among the Onge, spirits are feared but not loved; the same applies to God Himself. 775

The Onge bury their dead in trenches, no deeper than three feet. Earth is tightly packed over the graves in order to prevent exhalations. Full details on the subject of Onge burial customs appear in the book that I am writing about the Onge. I slept with the Onge in communal huts that contained fresh graves, without suffering any inconvenience from the smell of the corpses. This recalls the palaeolithic sepulchral caves, where man probably lived as the Onge live in their sepulchral huts today. 764

There are no latrines near Onge camps - whether permanent or temporary. Excrements are spread carelessly all around, lightly covered with leaves and earth. Flies lay eggs on them. The Onge's only precaution is not to defecate where drinking water might be found after rainfall. With so many opportunities for reproduction, in some places flies form such clouds as to impress the natives themselves. In the north of Little Andaman a creek was named after the flies: Bumila Creek, which means "fly creek". Smells also occasionally inspire geographical names: Tambe-é-buie, on the north-east coast of Little Andaman, means "the smelly place" in the Onge language. Flies, fleas and ticks are tolerated by the Onge who do not fight them. Fortunately, the hymenoptera collect flies for their nests, not, however, in quantities large enough to compete with the fertility of the species. 514, 796, 825, 109

2. Clothing and personal care

The only garment worn by Little Andaman women is the *naquinéghé*, a scanty grasslike apron covering the genitals. In addition, during menstrual periods, Onge women wear the *bataghé*, for hygienic purposes. This is a simple cluster of long, soft green leaves cut by the husband for his wife from special trees: *Myristica longifolia* and others. The only leaves used are those from the end of a stalk, a section of which is left attached to the leaves. The stalk is slipped under the *naquinéghé*, while the long leaves are passed between the thighs to be fastened at the back above the buttocks. It is curious to see Onge women in such myristical attire. The *bataghé* is ethnographical news, new not only as regards the Andamans: it is an interesting indication of the hygienic measures employed by primitive people, and can probably be traced to prehistoric practices in analogous circumstances. The continental and insular regions nearest to the Andamans have retained no similar custom; their only practice is the strict isolation of menstruating women. Among the Onge, on the other hand, they are allowed free circulation. Washing is unknown to the Onge; they never wash their bodies intentionally. Brushing through the thick forest and diving into the sea or the river to collect food substitute adequately for washing. The Little Andaman forest is nearly always dripping; moving among the trees, specially in the early morning, is equivalent to bathing. The contact of wet leaves when walking cleans the Onge's skin, for they go naked; and as they constantly dive into the sea and rivers, they do not smell. Actually they give an impression of cleanliness - as opposed to many other dark-skinned 291, 841, 824, 171, 515, 147

841 resembling these practices in any other part of the world. Never hitherto
171 described, they should be carefully considered. This would require a lengthy
description, for which there is no space here. We may recall that menstruating
Onge women are allowed to circulate freely at all times. An interesting detail
[751] is that the *naquinzhē* of first menstruations are worn by relations around their
neck as having health-giving properties. The women, as we know, use special
841 soft, long leaves, collected for them by their husbands, as absorbents. They
[824] are the leaves of *Myristica longifolia* or of *Tretanthera lanceofolia* both species
serving the purpose. They are applied under the *naquinzhē* and drawn back
between the legs to be secured above the buttocks. - Sexual intercourse is
[834] forbidden during the menstrual period even by the Onge: illness - a swelling
[753] of the arms or legs - would follow. A curious theory about the reason for
menstruation in very young girls is that it is a result of previous sexual contacts
stimulated by nose rubbing - the Onge substitute for kissing. They ignore the
892 unhygienic practice of kissing with the lips, and never even kiss their children.
Only nose rubbing is practiced. The anatomical structure of the Onge nose,
which almost totally lacks nasal bones and is very fleshy, may explain this
transference of sensation from nearby regions, i. e. the lips.

844 Births take place in the forest and are surrounded by no hygienic pre-
cautions or disinfection as conceived by us. Clay is applied to stem puerperal
bleeding, without provoking infection. The only assistant is the pregnant
woman's husband, and sometimes one or two old women. Their ability equals
that of a herdsman delivering his goat of a kid. No inconvenience arises, in
either instance, from lack of precautions. - The tiny, tender and graceful bodies
[751] of Onge infants are smeared with ochre and light-coloured clay for hygienic
purposes. This is done immediately after birth, and affords some protection
against the teeming legions of mosquitos and ticks that plague Little Andaman.
The infant is never washed in water, not even at the very moment of birth.
The placenta is buried 30 or 40 cms deep, under the bed of naked branches
upon which the mother delivered her baby.

842 An argument that deserves much attention concerns the possible link
143 between lack of hygiene and sterility among the Onge. A vast number of married
couples have no offspring, thereby threatening their group with extinction.
Consanguinity could be given as a cause: let us examine it. No doubt the Onge
are related to each other as a consequence of long interbreeding in their island
with no foreigners admitted. These conditions afford an ideal field for studying
the effects of endogamy on man. Nowhere in the world, as far as I know, are a
people so isolated as in Little Andaman. Inbreeding has existed at 100 % ever
since remote times. In other words, the Onge would seem to be the most highly
inbred human population known up to the present. Could this fact alone, aside
from unhealthy habits, explain their present widespread sterility? Special
174 studies on the subject should be undertaken, keeping in mind that the Onge
have certainly inhabited Little Andaman for thousands of years, on the evi-
dence of my excavations in their kitchen-middens.

[23]

The second trip was made on March 12th 1948. Our party included Mr. JOSEPH and Mr. POOVIAH², both Sub-divisional Officers of the forest department, one Burman bush police and four Andamanese with their two canoes tied behind our motor boat. We followed the same route from Long Island and, reaching Spike Island, we anchored at its northeastern corner. We came ashore in the canoes. The beach was small and rocky. Part of it was sheltered on one side by huge rocks behind which the Jarawa were known to waylay those approaching from the sea. So we landed very cautiously. Just at the outskirts of the jungle we saw huge bundles of short bamboo lengths tied to one another and piled up in a heap. It was a Jarawa raft. Near the bamboo pile were three crude paddles split from the spadix of the palm called *Nipa fruticans*. We were all the more careful in our approach.

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[824]

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Soon we came upon a clearing in the jungle. There was no Jarawa, but all around we saw traces of a temporary halt of a large party. We counted nineteen fireplaces. At a distance from the fireplaces we saw a small temporary hut improvised out of the materials available on the spot. Two small shrubs were tied together on two sides to form the roof of the hut. The Andamanese identified it to have been made for the Jarawa chief and his wife. Household objects

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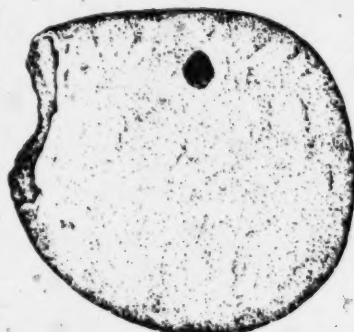


Fig. 3

lay scattered about. Three bamboo cylinders, closed at one end by the natural node, were found next to three of the fireplaces. They are used for carrying water. A dark coloured modern glass bottle, probably acquired during a raid, was also found. One fireplace had a small compartment enclosed by a few wooden posts a few yards off. The Andamanese identified it as an enclosure for keeping a child at a safe distance from the fire. This was probably correct as there was also a baby sling made of bark, exactly similar to that used by the Onge for carrying a baby on its mother's back (VON EICKSTEDT,

1934, fig. 211). At one corner of a fireplace the shavings of an arrowshaft or a bow were seen and nearby was a flat round pebble, one end of which was broken like that of a scraper (fig. 3). This scraper showed marks of red ochre on it. Beneath a tree a circular mat, sewn out of three pieces of long triangular palm-like leaves was spread out, while on its branches was found a beautiful specimen of an unstrung bow. It appeared to have been recently prepared and

² These two officers captured two Jarawa males, one adult and one boy, on October 19th 1948 on Spike Island. They were brought to Port Blair, wherefrom they managed to escape at night.

Onges

THE ANDAMAN ISLANDERS

157 Western standards taciturn or sly, and the Negro peoples, who
 522 frequently manifest complete abandonment in their amusement.
 157 Obscenities appear to be an unfailing source of amusement to the
 527 Onges, who indulge in them at every opportunity, even with
 831 strangers, and the obscene dances of the womenfolk are a continual
 source of pleasure. The exchange of obscenities is, indeed, a sign
 of friendship, and I found that vulgarity was invariably immensely
 successful in provoking hilarity; any subsequent negotiations were
 always peaceable and satisfactory.

302 An extension of this vulgarity is an infantile vanity, not without
 157 sexual significance. The care with which their bodies are painted
 nearly every day is one aspect of this vanity; the more a wife loves
 her husband the more magnificent the designs she executes on him.

153 The paintings on their bodies reach a peak every two or three days,
 151 as the Onges fear illness and death if they are not newly daubed, and
 161 the face at least must be continually painted, with at least smears on
 the chest, arms and legs. A man returning from an exceptionally
 successful hunting trip is met by his wife with a specially unusual
 and elaborate design, which she carries out with great devotion.

123 During each of my visits to the island the Onges would rush up to
 show me their embellishments as soon as they were finished, and
 took a delight in standing in front of my camera, even though they
 had no idea what it was for.

304 It is curious that unlike most primitive peoples, the Onges do
 171 not practise tattooing, which is one of the simplest ways, if not *the*
 simplest, in which such people satisfy their craving for physical
 184 admiration. The other Andamanese do, puncturing the skin with
 302 tiny slivers of obsidian or quartz, but the Onges paint with ochre
 instead. They love, too, to weave garlands of fruit, flowers and
 301 leaves from the forest, returning to the camp laden with them, men
 324 and women alike, delighted with their own beauty. This divergence
 184 of customs in peoples essentially of the same stock, but separated for
 long periods of time into endogamous isolates, is very remarkable.

838 An intense preoccupation with sexual attraction and activity has
 led to the prevalence of aberration. All the Onges have homosexual
 tendencies. I became aware of this during my first visit to Little
 Andaman on one of my longer expeditions, when I had taken only
 men with me, and on subsequent occasions I therefore allowed the
 men to bring their wives. The effect of long periods of absence on

THE SILENT FOREST

sea itself, but to the rising and falling of the land with the recurring movements. Even between 1951 and 1952 there was a noticeable alteration in the level of the north-east coast of Little Andaman, following an earthquake in July 1951; the Onges had to move the communal hut at Tambe-e-buiè further inland, because the sea, previously twenty metres away, had begun to come right up to the hut. In several places giant trees centuries old crashed to the ground, their roots left without any foothold as the level of the land fell suddenly all along the coast. If this can happen in one year, it is hardly surprising that what now appears as an archipelago is in reality a continuous mountain chain, its levels broken and rebroken over thousands of years till the islands became separated by the sea for good, their coasts so eroded that subsequent quakes have failed to reunite them. 133

It is highly unwise even to attempt a landing on Little Andaman during the monsoons. Both the north-east monsoon in June and August and the south-west in November and January whip the seas up into a frenzy, but in late April and again in late September the sea is quite calm. Since both monsoons pass over vast tracts of sea, they become saturated with water vapour and bring torrential rains, not infrequently accompanied by hurricanes violent enough to strip all the leaves off the trees. After these storms the jungle, normally almost impenetrable, is made even more so by the tangle of fallen branches and the trunks of old trees torn up by the wind or the lightning. The lightning strikes the tallest trees, which may smoulder for days on end without setting fire to the sodden forest, so great is the humidity. I have often seen one of these flaming torches; the Onges, ignorant as they are of the art of making fire, take advantage of the phenomenon, as a continuous supply of burning wood is a necessity in a climate which is so damp and humid all the year round that matches become useless after twenty-four hours unless suitable precautions are taken. 132 372

Once on the island, virgin forest stretches endlessly before one in undulating waves of treetops, black and terrifying. From the tops of the trees thousands of lianas hang everywhere, winding like snakes from trunk to trunk, forming an inextricable tangle, yet somehow always elegant, binding the entire forest into one dense mass. Many of the tree-trunks reach diameters unheard of in temperate climates. Some of them have hollow cavities, treasured by the Onges as hiding-places or temporary shelters. 137 [824] • 25

THE ANDAMAN ISLANDERS

137
[136] the Onges as hiding-places or temporary shelters. In these cavities, which remain full of water right through the dry season, flourish a horde of amphibia, many hitherto unknown.

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202 The great trees are sometimes so close together that it is literally impossible to pass between them, yet it is rare to find two of the same species next to each other, so great is the variety. Huge clumps of ferns are everywhere, hiding the roots of dying trees, hundreds of years old, and fallen trunks rotting on the ground. Some of the thicker and taller trees protect themselves from the monsoon gales by developing buttresses, usually four or six to a tree, which stand out from the trunk like right-angled triangles, with the apex about ten metres from the ground. If a blanket is stretched between the sloping sides of two of the buttresses one can improvise a shelter which is extremely comfortable by local standards, and both man and animals take advantage of this natural cover; I myself took shelter like this on many occasions. (They need to be treated with caution, however, as the local snakes have a predilection for siestas in the darkest corners.) If a hard piece of wood is struck against one of the buttresses it echoes hollowly, and the Andamanese often make use of them to transmit warning messages over considerable distances, using a form of code. A few beats can make every inhabitant within a wide radius vanish from sight, hastily making for the nearest hiding-place. It is hopeless to try and ferret them out once they have been warned, and there is always a risk of being killed by one of their arrows in the process.

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[522] Sometimes the Onges used to disappear suddenly for fun. The blackness of their skin is a great help in this, since even on the brightest afternoon it is intensified by the obscurity of the forest. One has a disturbing sensation of being entirely alone, yet knowing that dozens of pairs of eyes are watching as the Onges glide silently from trunk to trunk between the buttresses.

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[48] The whole island is a mass of knotted vegetation, and it is useless to attempt to cut any form of lasting path, as the plants immediately grow back. 'Walking' in the Andamans therefore means opening up a way with a hatchet, unless one adopts the rapid but exhausting Onge method of swinging over obstacles by the lianas. This is the kingdom of the epiphytes. The lianas cover their hosts as if determined to hide them, and clumps of orchids hang from nearly every trunk, although their flowers are unfortunately very small.

THE ANDAMAN ISLANDERS

137 chance landing of a tiny seed means inevitable death by strangulation and the new plant ends by covering its victim with its own leaves, rising above the wreck till it looks like an independent tree.

In another form this struggle between plant and plant goes on all over the Andamans. In many places, especially where the ground is flat, the foliage overhead kills the undergrowth by cutting off the light. The tops of the trees, thickened by the festoons of climbers growing over them, form a blanket high above the ground, keeping out the light in their own struggle to reach the sun. In the darkness below the vegetation is sparse and thin, and I took advantage of the fact many times on journeys on Little Andaman, and also on Bluff Island, Long Island and Great Andaman. On the steeper slopes, all thickly wooded, the sun penetrates more easily, however, and the undergrowth flourishes; particularly thorny plants, and the need to try and avoid being gashed always added considerably to the effort of struggling up the slopes.

There is one climber¹ which bears growths that have the appearance of halberds. I never succeeded in finding out the function or the purpose of these adornments. The plant is a liana of incredible length, which climbs from tree to tree right to the top, often over fifty metres up, to find the sun. Throughout its upward twists and turns the diameter of the stem remains the same, not more than five centimetres. From top to bottom it puts out shoots of varying lengths which hang straight down and it is on these that the halberds appear. Green at first, the growths dry almost to black. They are neither leaves nor spines and they have no apparent function but to grace the shoots that carry them. I measured some of the shoots which are very pliable; they taper a little, but are almost filiform, varying in size from half a metre to 1.2 metres long, with a diameter of three centimetres at the base. Around each of these shoots or spikes, the 'halberds' are arranged with absolute symmetry, in opposite pairs, each pair set at right angles to the previous pair. The 'wings' of the halberds are not more than three centimetres wide, and the overall length of each pair is about six centimetres.

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312 Among the lianas are some valued by the islanders because they provide a clear liquid which has a pleasant, rather bitter, vegetable

¹ The author gives no name for this climber, which has been tentatively identified from the description as the rattan, or climbing palm.

THE SILENT FOREST

taste. The liquid content of these stems is so great that it makes them extremely heavy to carry. These lianas are very common all over the islands and anyone who knows them need never die of thirst. To get at the liquid one only has to break the stem and put it to one's mouth; if one puts a receptacle under the break, a litre or so of liquid can be obtained in a matter of minutes. When the first strangers came to the archipelago, the Andamanese watched them tear down parts of the forest, including these lianas, and tried in vain to protest at the vandalism. No one understood their protests, but they were right.

The forest abounds in trees whose fruits in season form an important source of food for the islanders. One is the so-called jack-fruit, *Artocarpus communis*, which here grows wild, though various species are cultivated all over Asia. The fruits, which appear on the thickest branches as well as on the trunk, are smaller in the wild variety, rarely weighing more than thirty grams, but the yield is enormous and the islanders enjoy them for months, especially from March to May. The Onges call them *bulundangbe*, and roast them in hot ashes till the hard pulp and seeds are eatable; the latter, the size of a hazelnut but tougher, are the best part.

Another useful plant is the *Pandanus*, or screw-pine. On Little Andaman extensive areas are covered with nothing else, making progress very difficult owing to the twisting roots and the spines on the long, tough leaves. It seems to prefer the coastal areas, particularly the marshes, where it often grows into an impenetrable jungle. There are at least two species, one of which is gregarious. The other, which grows as isolated specimens, is longer leaved, with bigger fruits and stems like candelabra, standing up on an arch of roots, as though on stilts. With the leaves of this variety, fluted and easy to arrange like roof tiles, the Onges can quickly improvise a waterproof covering. The young leaves provide them with ornaments which they wear for their dances, while the pulp of the fruit, which looks rather like a pineapple, perfumed and delicately flavoured, is nutritious though somewhat stringy.

Along the coasts where there are no *Pandanus*, one very often sees something very different - mangroves. The islanders use the wood for their canoe floats, and for fixing pegs (see p. 122) and the supply is unlimited, as the growth and spread of the mangroves are assured by a number of factors which have made them one of the best

THE SILENT FOREST

their arched vaults of roots, strong enough to bear a man's weight without bending. In some places I had to travel hundreds of metres across them, clambering from arch to arch, before I could reach dry land and sweeter air (the air in the swamps is foul with the stench of dead fish, crustacea and debris of all kinds from the sea, caught in the network of roots). Among the roots swarm crabs of all kinds, including the blue crabs, while kingfishers and other brilliantly coloured birds dart gaily in after the easy prey. 137

Near the mangrove swamps, in the mouths of the rivers, giant fronds of the Nipah palm stick up out of the water here and there. The feathery fronds, standing several metres high, are used by the crabs to climb out of the water and tiny toad fish, (see p. 133) equipped with both gills for life under water and lungs for air breathing, like to cling to them for an airing when there are no stones handy. Every day these fascinating little creatures stay in the sun for hours before dropping back into the waters of the swamps and in some places they are everywhere, always ready to jump out of the water on to a convenient projection to have a look at what is going on. 136
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The Andamans, with their luxurious growth of vegetation of all kinds, are an ideal place to study plant dispersal. I have already mentioned the *Ficus* and the mangroves, but there are many other equally fascinating plants. Some used by the Onges for the production of fibres are widely distributed from India to Malaysia and the Pacific. Among these are *Gnetum gnemon* and *G. macrocarpum*, generally spread by the doves which flourish undisturbed on Little Andaman. In April, when the winds come, swarms of curious elongated parachutes equipped with an air trap which causes their spinning flight are blown from *Pterocarpus dalbergoides*, which provides the well-known *padak* wood. The weight of the seeds (the size of a pea) at the base of the parachutes and the effects of the air trap give them a horizontal, screwing flight which carries them far from the parent tree. I have seen these parachutes in the sea, hundreds of kilometres from the nearest land. Mathematically designed by Nature to trap the right amount of air, the tiny parachutes are barely ten centimetres long. Their efficiency is self-evident - *padak* is one of the most widely spread trees in the archipelago, in the Nicobars and far beyond. 137
[283]
[824]

In the stagnant pools on Little Andaman I found a species of explosive fungus which closely resembles, if it is not in fact identical

THE ANDAMAN ISLANDERS

137 with, its European counterpart. The spores, attached to a plume barely visible to the naked eye but wonderfully constructed, are carried into the sky by the air currents rising from the pools in the hottest part of the day and travel considerable distances.

One could fill whole books with the botany of the islands but here I can record only a few examples. One I cannot leave out is a species of *ipomea*, or Morning Glory, which flourishes on the sandy beaches in the lee of the coral reefs. The local varieties are not climbers, but spread over the ground in a compact lattice of stems, fairly well able to withstand the onslaught of wind and water. They prevent coastal erosion, both by the protection which their covering of strong stems and leathery leaves provides and by holding fast loose pieces of coral. These *ipomeas* are found only in the Andamans, some with purplish flowers and others white. They surround the communal huts along the coast, carpeting every free inch of ground cleared by the Onges of other and more destructive vegetation. They make no attempt to cut down the *ipomea*, as the compact growth helps their canoes to slide up and down the beach.

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137 Along the coast of Little Andaman one sees rows of beautiful casuarinas (the Whistling Pine) especially a little to the north of Bugong Creek. From out at sea they stand against the skyline like rows of Italian cypress. They never reach the height of which they are capable, owing to the wind and the nature of the terrain; apart from a small stony, hilly area in the interior, of ancient continental origin, the island is really nothing more than a huge coral bank lying against these hills, which in the course of thousands of years has become covered with vegetal mould of no great depth. Trees are therefore forced to send their roots out horizontally, and the strong monsoon winds can easily uproot the tallest of them. After every storm one sees huge trunks lying on the ground; their wide net of roots sticking high into the air. Only a few of the giants in the interior manage to resist, protected by their neighbours. On Great Andaman, where there is more land of continental origin, deep rooting is possible and the forest presents a very different picture.

137 Much has already been written by others about the epiphytes, among them beautiful ferns and even more lovely orchids, which cling desperately to the trees in their struggle to reach the light. All are closely related to the flora of Burma, Malaysia, and Sumatra,

THE ANDAMAN ISLANDERS

105 gathering society; it is extremely probable that a study of their daily life today is virtually equivalent to a study of their life as it was in ancient times.

231 So near are the Andamanese to their original state that they show
241 no signs of ever having had any real agriculture. The Indian
197 Government has tried in vain to induce the surviving Arioto to keep chickens by presenting them with birds and food for them; the gifts were accepted out of politeness, but there the matter ended. Among the remaining Negritos, however, particularly in the Philippines, there are noticeable signs of the awakening of some agricultural sense, even to the extent of some commerce, and regular attendance at markets. But on Little Andaman, for example, I saw in 1952 various ginger trees growing, brought there by some unknown means and at Entigheh there was also a pumpkin. In 1953 and subsequent years there were no pumpkins at all on the island, and although the gingers were still thriving they were clearly doing so by chance, without any attention from the Onges, who ate some of the small red fruit, and seemed to like the piquant flavour, but still showed no signs of wanting to perpetuate it. In several places both on the coast and inland I saw, too, clumps of the slender native bamboo, hardly planted intentionally; the ground sites of some huts now abandoned, like Bughench and Odadda, were covered in them. The inhabitants had apparently wanted to procure a supply of material for roofing mats, or the drying platforms used by a few groups, and so the plantations were completely stripped - and killed.

245 In order to plant coconut trees for the benefit of the islanders I
197 had even to do the planting myself, so utterly ignorant were they of agricultural methods; we even had to do all the clearing of the undergrowth in a patch of forest, and prepare the ground. The Onges watched curiously but were quite uninterested. Why should they care for a tree for ten years to get its nuts when the island and seas around are teeming with food for the taking?

● 824 In their continual search for food the Onges have acquired
825 botanical and zoological knowledge which seems almost innate, and they know of properties in plants and animals of which we are quite unaware. Nearly every day on Little Andaman I came across examples of this. I only had to draw a rough sketch of an animal and they knew at once where it could be found; it was only thanks

THE SILENT FOREST

to them that I was able to find the various amphibia which subsequently proved to be new species. They know poisonous and non-poisonous snakes by sight and how to avoid being bitten. They could tell me which trees flowered and when, because they knew this affected the whereabouts and the quality of the honey, and they knew which flowers and roots had medicinal properties. The necessity, in accordance with their superstitions, of keeping their prey alive as long as possible has also given them a somewhat gruesome knowledge of anatomy and physiology. The call of food has also made them weather experts; they know which air currents and winds bring what animals, or cause them to vanish, and what game is likely to haunt what terrain. They could tell me where to find certain fish, or crustacea, or where certain roots or fruit in season were to be found. 824
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The striking feature of their knowledge was that it did not merely relate to what was edible or inedible. Amphibia, reptiles and birds for example, they never eat under any circumstances; but they knew where to find them all for me, and they knew the bird migrations and how these related to the movements of the marine fauna. [821]

Providentially, the exactitude of the Onges' botanical and zoological knowledge is matched by the magnitude of their superstitious fears. Were it not for this all the edible vegetation on the islands would have disappeared long ago as a result of their incredibly thoughtless destruction. The effect, therefore, is almost that of a purely involuntary, embryonic form of 'agriculture', contrasting strangely with their persisting, persistent and complete lack of interest in any formal care, however primitive. The Onges believe that the plants which produce edible roots and tubers belong to a spirit related to Eiuga, whose anger is aroused if he sees his plants being taken; his vengeance is quick and terrible. [824]
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[784]

There are on Little Andaman a number of creepers with edible fleshy roots, sometimes as thick as a man's wrist, sticking out horizontally at least fifty to sixty centimetres from the main stem, only just below the surface. They invariably grow in light soil, where there are no rocks, and are very easy for the Onges to reach with their digging sticks. These and the yams, sometimes as big as a football, which are to be found everywhere, the Onges have to steal from the spirit who owns them. The creepers themselves, 222
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THE ANDAMAN ISLANDERS

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twining up into the trees, and the shorter-stemmed yams, are never disturbed. The Onges merely dig down, at a respectful distance from the plant, certain of finding what they want. On no account must there be any signs of the theft for the spirit to see, so they quietly take off roots or tubers some way from the main stem and leave the rest, patting the earth down afterwards and covering the place with leaves. The guardian spirit, not, apparently, all-seeing, notices nothing, as the plant continues to flourish, improved by the root pruning. Everyone, guardian spirit and Onges alike, is happy.

[185]
[114]

This unconscious preservation may well be the result of a decree, in some remote past, by an Onge seer who realized the danger of killing off the entire plants and invented the guardian spirits as a deterrent. The Negritos still make similar use of roots and tubers; Skeet and Blagden fifty years ago referred to the Semang eating poisonous wild yams, having removed the toxic substances.¹

[191]

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It is interesting that both in the past and even today a number of peoples at a very early stage of cultural development have progressed from the gathering of the wild yams of South-East Asia to the first signs of cultivation and agriculture. It is possible that they were the first plants ever to be cultivated by primitive Man, the Negritos with their digging sticks delving then as they do now; the genus is certainly a very ancient one, and some species, such as *Dioscorea alata*, may have spread from Asia to Africa and Oceania, and even to America, with the beginning of cultivation. But this is a stage of development which the peoples of the Andaman never reached.

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[177]
[222]

The digging stick, the only implement the Onges have with which to get at the roots and tubers, has in recent times been affected, though to a very limited extent by the spread of iron. Only a few individuals possess a primitive iron tool, half a metre long, cylindrical in shape and usually not more than one and a half centimetres in diameter and flattened into a form of blade at one end. The vast majority still have only the age-old stick made of hard wood, hardly recognizable as a tool and crudely fashioned into a point at one end. This tool, so primitive that it can easily be mistaken for an odd

¹ It is interesting that the American Aborigines, especially in Brazil, do the same with manioc, but I saw nothing of this nature in the Andamans.

THE SILENT FOREST

night. Everything else stops. *Bulundangbe* are food enough, and even honey is left for the future; there will be larvae, and bees, and nests to come. Life is good! 222
[262]

Later come the large, heavy *Pandanus* (*Mane* to the Onges) but they are far less important. The whole fruit has hardly any smell, but immediately it is open it smells rather like a pineapple. The separate segments, actually carpals, each in its own skin, pineapple-coloured on the outside shading to a pale yellow, can be picked off one by one. Each carpal is rather like a pyramid, with the top towards the centre of the fruit, the base towards the outside, wrinkled and divided into cellules each containing an ovule. The edible part of the fruit is very small. In the Nicobars, where the huge cultivated variety can weigh anything up to two kilos, the women spend hours passing a string through and through the heavy sphere of orange pulp to comb out the short bristly fibres which damage the stomach. The Onges are not interested in such niceties! The smaller wild fruit is merely broken into pieces, ready for chewing. The result of all the chewing is hardly worth the effort; there is taste, and there is smell, but the food value is very small indeed, and even the Onges seem to realize it. [171]

Much better are the *giogbene*, which ripen in February, and the *gbine* in mid-March. The *giogbene* are soft, red fruit, the size of a cherry but rather less rounded, hanging in bunches from the trunk and the larger branches of the tree. The green seed sprouts out of the end of the fruit, like a large bean, but is not eaten; the Onges cut it off, and eat only the pulpy fruit, raw. They love to make necklaces, twining the fruits with slender fibres into long garlands, even making some for me when I was with them, and return to the camp every night with long ropes hanging round their necks and from their arms. [301]
[824]

Gbine are very different. From the outside they look like small medlars, covered with a leathery skin which is easy to crack off with one's teeth. The fruit itself has three segments, and is rather gelatinous, a little sour, but quite edible. The Indians with me liked them very much and ate so many that they developed severe indigestion - unlike the Onges, who ate far more with no ill effects.

THE SPIRITS OF THE FOREST

ground. Two parallel transverse poles of equal length, one front and one back, complete the frame, which is lashed together with the usual rush fibres. The roof consists of fresh *Pandanus* leaves, palms, or grass. It never actually touches the ground, and food refuse is thrown out from underneath it in the usual way, covering the ground round the shelter. 342 [824] [364]

The bed takes a little longer than the roof to put up, as a number of sticks have to be gathered to make the compact platform, raised about half a metre from the ground on four stout props driven into the ground, one at each corner, and a suitable trunk has to be found for the head-rest. Normally one bed takes an entire family - mother, father, children and dogs, all well packed on the platform with the inevitable fire beside. On rare occasions, when the shelter is intended purely for the menfolk on a hunting expedition, only one bed is prepared, but generally every hunter has his family with him. I have myself slept like this with the Onges on trips where the forest was too dense for any baggage to be carried. 513 352 [122]

As the kitchen-middens show (see p. 68), their permanent huts are, with very few exceptions, circular and are still extremely simple. The essential feature is the waterproof roof-mats, well overlapped, which form the enormous umbrella roof. From the outside the whole thing looks in danger of collapsing, but from the interior it is obviously safely held by a frame of poles, lashed with innumerable ties to stout uprights fixed firmly into the ground. No central pillar is needed, and when there is one it is only by chance; I saw very few on Little Andaman. There are no divisions into rooms or compartments - everything is open to the eyes of all the occupants of the beds. Most of these are arranged as the radii of a circle, fairly near the outer edge of the hut, the roof coming down so close to the ground that everyone sleeps with their heads towards the centre, but there may be some beds across the centre space. 342 [513] [352]

At the circumference the roof is only thirty to forty centimetres from the ground, the roofing mats being well lashed on to uprights in case of high winds, and one can wriggle in and out of the hut on one's stomach, crawling over the refuse thrown out through the convenient gap. There is always, however, a 'proper' entrance, where one edge of the roof-wall can be lifted up. At the top of the roof, on the lee side, one section can be propped open on poles, 342 [354]

A JOURNEY INTO PREHISTORY

they may be, and the strays of the Andaman forests howl unceasingly. Even in the Onge encampments the dogs howl enough to wake their sleeping masters; the only way to stop the noise is for the Onges to forestall it by taking their dogs into the family bed, fleas and all. There ensues silence, warmth and more fleas!

Hunting weapons of the Andamanese, the Semang and the Aetà were originally made by all three peoples in a similar way, common to all the Negritos. None have any defensive weapons as such; their bows and arrows, never feathered, serve as arms as well as for hunting and fishing. Shields are unknown and spears, rare in the Andamans and among the Semang, are apparently no longer in use among the Aetà; where they exist they are usually mainly for hunting. All three peoples, however, have the arrow harpoon.¹

Their bows are all clearly derived from the same source. In the Andamans, only the Onges and Jarawas have remained true to the original form, local variations arising at a later date, and they afford additional evidence in favour of Little Andaman being the original springboard from which the Negritos entered Great Andaman.

All the Negritos make their bows from one piece of wood stripped longitudinally from the living trunks of large trees such as *Mimusops littoralis* or *Pterocarpus dalbergoides*. After they have been left to season the strips are patiently fashioned into the required shape; for this the Onges use the shells of *Cyrena* (the freshwater species, which are tougher). The bows are straight, thicker in the middle and gradually tapering towards the ends, and are usually 1.6 metres long, although there are exceptions. The cross section is the same throughout the length of the bow, varying from three or four centimetres diameter at the centre to two and a half centimetres at the horns. The inner surface is so slightly curved as to be almost flat, while the back is markedly convex. The blunt horns end in a 'shoulder and neck' stop to take the string, the neck projecting about one and a half centimetres beyond the shoulders - enough to hold the bowstring. The shoulder is formed by strips of *Ficus* bark wound round the bow, or the yellow fibres of *Dendrobium*; one shoulder is invariably larger than the other. The string itself, made from long thin strips of *Ficus* bark twisted together, has a very narrow loop on one end and a larger one at the other;

¹ See p. 86.

A JOURNEY INTO PREHISTORY

becomes more complex; the upper horn is more pointed than the lower, and there is a difference between the upper and lower halves of the bow, as it is necessary to prevent the loops of the strings slipping on the bow. The bow string is made not from *Ficus* bark, as in the Onge bow, but from thin *Anadendron* fibres, twisted together and waxed with beeswax; it has the usual loop at each end, and the bow is strung with the help of the foot as in the simpler version. When strung, this type of bow becomes S-shaped as a result of the variations in elasticity arising from the spear-shape of the two halves, but when drawn it assumes the normal shape. The fact that it is easier to draw an S-bow than a single-curve one, without any loss of propulsive force, is an interesting mechanical point.

The bows are only strung when required for use, and in the normal way neither they nor the arrows are ever seen by outsiders; they disappear up into the roof of the communal hut, or into the bushes round the temporary camps. Even with friendly Onges I had to ask specifically to see them, or surprise their owners out hunting.

The external influences to which the Semang and Aetà have been subjected have been strong enough to make them to a large extent forget their original form of bow, which has however survived alongside a large number of cultural innovations. The differences, for example, between the upper and lower extremities of both bow and string have persisted, and the shoulder-and-neck stop (although this is now made by notching the bow-stave deeply) so that we may reasonably assume that a close study of the Onge bow will give us the essential characteristic of a very ancient form of the weapon. The greatest modification to the original form is the one which has been made on North Andaman, and in an attempt to improve the effect of separate curving of the two sections selected trees are deliberately trained for the purpose, the cut wood being seasoned slowly over heat and smoke, paying particular care to the parts which will take the greatest strain. As a result the 'give' in the bow is markedly increased. But even here no fundamental alteration has been made in the design of the weapon.

The Onge bow, therefore, represents the forerunner of the somewhat more highly evolved type (now dying out with their owners) on Great Andaman, and adds further support to the evidence for

A JOURNEY INTO PREHISTORY

screams of a wild boar can be heard for hundreds of metres, drawing the hunters in from all sides, eager to take it alive. If it proves to be a large male, whose tusks can inflict appalling injuries, the hunters kill it at once with a spear or with a third type of arrow which has a long fixed head. This type of arrow, which does not differ greatly from those found in other parts of the world, is still used by some of the Andamanese against human enemies.

The shaft of the arrow harpoon is made preferably from *Tetranthera lancifolia*, very common all over the archipelago. The wood for the shafts has to be straight, very slender at one end, where a notch is cut half a centimetre deep to take the cord, and a little thicker at the other, which is hollowed out for about one centimetre to take the head of the weapon. Splitting of the wood at the ends is, as usual, prevented by binding the shaft with *gnetum* fibres, twisted into thread and waxed with beeswax.

The efficiency of the harpoon depends on the double-strand cord, extremely strong, made from *Hibiscus* fibres. One end is fixed on to the shaft, five centimetres from the point at which the foreshaft enters it, and the other to the foreshaft, two centimetres from the base, with a thirty-two centimetre loop of cord between the two fixings.

The harpoon blade, now made of iron, is eleven centimetres long and spear-shaped, ending in a series of barbs. The haft of the blade is bound tightly on to the short foreshaft, also eleven centimetres long, which is scraped thin at the end so that the haft can be bound on smoothly. The complete weapon mounted for use is about eighty-eight centimetres long overall in the Onges and Jarawas, and slightly shorter, about sixty-five centimetres, in the Arioto.

To prepare the harpoon for use the slack of the cord is wound firmly round the shaft, and the foreshaft with the blade attached is forced in. As the harpoon strikes, the shaft becomes detached and the victim, firmly held by the barbed arrow head, drags it along on the end of the cord until it catches in the undergrowth and holds the animal fast.

There is little difference between the arrow harpoons of Little Andaman and Great Andaman, and what difference there is affects only the dimensions, the type of cord, and the form of the barbs. The basic principle remains the same wherever it is found; all the Negritos, including the Semang and Aeta still use it, although these

THE ANDAMAN ISLANDERS

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411 two have added feathers, and poisoned tips, in imitation of neighbouring peoples.

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411 For the capture of large fish and animals such as turtles, dolphins
114 the spear harpoon. Brown saw none of these among the Onges he
22 studied in Rutland, and consequently assumed its absence on Little
[484] Andaman. The Onges carry as little as possible on their sea voyages
(used only for marine hunting) with them on trips to Rutland,
which they visit only for the purpose of hunting pigs and not to
fish, or to hunt marine animals. They certainly have, and use, spear
harpoons even today; I myself have been with the Onges and seen
their harpoons used from the canoes. I had ample opportunity to
admire both the effectiveness of the weapons and the accuracy of
the throwers.

411 The greater structural and operational simplicity of the spear
[283] harpoon, in comparison with the arrow harpoon, leads one to
suppose it the older of the two. Its cord is made of tough *Hibiscus*
fibres, and with the aid of these and a straight shaft about six metres
long and little over four centimetres in diameter, even the humblest
of nails, seven centimetres long and three millimetres in diameter,
[829] can become the point of a spear harpoon. It is fixed into the shaft
(usually of mangrove wood) which is hollowed out at the thinner
end to take it, and with a cord up to a hundred metres long or more
attached to the nail two centimetres from the head, the spear har-
poon is ready for use - shaft, point and cord.

411
225 When the harpoon is to be used for turtles, no barbs are needed,
as the point is driven so firmly into the shell that blocks of wood
have to be carried in the canoes to knock it out for re-use.

The harpoon throwers stand ready on the platform jutting out
fore and aft of the canoes (see p. 122), the free end of the cord is tied
to one of the booms to prevent it being jerked out of the canoe as
the victim tries to escape, and the slack is coiled in the bottom of
the canoe. The thrower holds the cord against the harpoon as he
waits for the right moment and then throws. As the harpoon strikes,
the point detaches from the shaft, which floats on the water till
picked up - often to be used as a punt-pole in the shallow waters of
the coral reefs as the canoe follows the victim, now held firmly on
the end of the cord.

HARVEST OF HONEY

sweet, and delicately flower-scented. No one waited for the climber to reach the ground. With my men and the Onges the party numbered twenty-two in all, every one of them hungry. The log was thirty centimetres across, and besides the combs there was a good four inches of honey in the bottom, but even so I only managed to set aside two litres for the man who did all the work, before the combs had all disappeared and the remaining liquid as well. The whole lot was gone in a matter of minutes.

What puzzled me was how the bees were quietened. I knew from personal observation that both the varieties of bee on Little Andaman could and did sting badly, and I knew that the Onges I had watched had done nothing deliberately to avoid stings.

In Man, the olfactory sense can detect minute amounts of iodoform, for example, but we are completely insensitive to other substances strongly repellent to flies, mosquitoes and other insects. Some similar mechanism must also operate in the case of bees. The Onges cannot understand anything of this, but they must possess some age-old, almost intuitive and innate knowledge, which they apply unconsciously. At some time someone must have found that the juice of a certain plant they call *tonjogbe*, apparently inodorous, has the power of deterring bees, and this knowledge, handed down from generation to generation, is applied with delightful simplicity.

In the forests of Little Andaman there are bushes of *tonjogbe* everywhere, and the Onge who is to go after the honey simply grabs a handful of the leaves and stuffs them into his mouth. With some vigorous chewing they are quickly reduced to a greenish pulp, which is smeared all over the body, particularly the hair. Another huge mouthful chewed on the way up and spat at the bees to make quite sure that they will be deterred even to the point of failing to attack the unsmeared bystanders. I have myself tried the leaves, and like the Onges found them quite tasteless and odourless. The Onges say that the 'magic' was revealed by a seer, and it is a curious fact that of all the luxuriant vegetation on the island only this one plant is effective.

I am unfortunately not in a position to say definitely to what species *tonjogbe* belongs. I took some plants to Port Blair, where they were planted in the Governor's garden; unfortunately before they could flower the then Governor left, and a new gardener

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FOOD FROM THE SEA

They have neither incantations, amulets nor propitiating signs to help them. Even the *marque de chasse* found on their arrow heads had no major significance; in all probability they merely served to indicate the best arrow and at most they served as a warning to the womenfolk not to touch them (it is interesting that I never saw any woman or child with a bow or an arrow). But this is as far as they go towards superstition, and its only effect is to enhance the division of duties between the sexes. 227
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[782]

The Onges, unlike the Jarawas and Arioto, have never lost the art of canoe making, and the building of a new canoe is an important matter. The selected tree, always one of the three species of *Sterculia*, is felled and then hollowed out slowly and laboriously with a rudimentary form of hatchet, the work often being done by one man alone. The weight of the felled trunk makes it necessary for the work to be done where it falls, but after much patient whittling away the resulting canoe is extremely light, with thin walls, though still not light enough to be carried to the water, never far away. A series of short logs are used as rollers in the age-old way and the builder's friends all gather to help clear a way through the undergrowth and prepare the rollers. Only a few are needed; all is soon ready and the Onges watch delightedly as the canoe glides away down to the shore. These canoe-ways often provided me with an easy path to the sea if I came upon them in the forest. Sometimes they led not to shore but to one of the many creeks, where salt water and marine fauna penetrate miles inland and make it easy for the Onges to launch their canoes from a point far from the sea. 396
[184]
[824] •
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The Onge canoe, hollowed out in one piece, is a survival of the ancient canoes of the Neolithic age, found in Switzerland and elsewhere in Europe. It survives in the Andamans, and through Oceania to the Americas, in northern Asia (notably among the Ainu) in south-west Asia, and even in south-east Africa. 501
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The canoe has no distinction between bow and stern, and is commonly navigated from either. At each end of the canoe a crude platform juts out, on which the harpoon throwers stand. Very careful attention is paid to the float, which is fragile, and is therefore kept on the lee side. The object of it is to prevent the canoe from capsizing, which it is otherwise very liable to do owing to its round keel, always left in the natural shape of the tree-trunk. I had some experiences of rough seas in one of these canoes 501

THE ANDAMAN ISLANDERS

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[314] One danger is that as the wood dries out small cracks will open up and let water through the end of the canoe; these the Onges stop with resin.

Then comes the decision which side of the trunk is to be the keel. Once this has been decided, the upper surface is chipped flat and the hollowing out of the centre section begins, leaving the flat platform at each end. The finished shell is often no more than three centimetres in thickness, increasing slightly under the end platforms to protect the ends of the canoe as they grate on the reefs.

• [824] The float and booms, which project considerably, are for obvious reasons attached after the canoe has been rolled to the water. The booms are made of heavy hard wood, but the float itself, made of *Hibiscus tiliaceus* or *Sterculia villosa*, has to be not only light, so as to float, but soft, so that the fixing pegs can be driven in easily. These are set into the float in a series of triangles, held in securely by the expansion of the wet wood and the upward force of the sea. The free ends of the pegs are then lashed together in groups of three so that each triangular set becomes a pyramid. The outrigger booms are set parallel to each other; each runs right across the hull, firmly lashed into holes bored on each side of the canoe high in the gunwales, and extends at least three metres out on one side. The apex of each pyramid formed by the float pegs is lashed up to one of the booms, holding the float fast to the booms above it.

The canoes have no reinforcing ribs either inside or out, and because of their inherent fragility they are never left in the water; they are dragged up over specially cleared runways to the communal huts near the shore. There they are left lying in the sun among the Ipomeas.

[314] The direct heat dries them so rapidly that the wood invariably develops cracks, and the Onges resort patiently to their invariable remedy; resin is smeared over the cracks inside and out, and reinforced by a network of fibres laid on top, with a further layer of resin to seal them over.

[237] Once on shore the canoes are left lying till they are next wanted, but with everything ready; the invaluable *Nautilus* is ready to bale out, so too are the point, cord and shaft of the harpoon, the large flat stones on which fire is carried without damaging the craft, and the blocks of wood to knock the harpoons out of the turtle shells.

FOOD FROM THE SEA

I examined a number of canoes drawn up on the beach. They varied in size from some eight to ten metres long, built to carry twenty people, to small single-manned craft three to four metres long, and there were some very small ones clearly intended to encourage the children to set out on their own. The very large canoes are, however, rare. The beam also varied considerably from some barely wide enough to admit a man's knees to others of one and a half metres or more.¹ 501

In the shallows, contrary to some assertions, paddles are never used; the booms would make alternate paddling extremely difficult. Reversed harpoon shafts are instead used as punt poles and oars, usually made of *Myristica longifolia*, are used only in deep water. They are sometimes but not always lashed into the holes in the gunwale through which the booms pass. They are short, not more than 1.5 metres long and are always rowed forwards (obviously there would be a danger of stubbing a reef if the European style of rowing was used). Like the canoes, the oars vary somewhat in size. Very roughly made they consist of a handle ninety centimetres long and a forty-centimetre blade. The grip tapers almost to a point and increases gradually in diameter towards the blade, which is long, narrow, blunt-ended and flat-convex in section. Usually it is merely roughly shaped with the Onges' crude hatchet, but occasionally it is smoothed off with a sharp *Cyrena* shell. The helmsman and pilot stand on the two platforms, guiding the canoe with oars. As far as possible the rowers avoid the side bearing the outrigger mechanism; any deviation of course caused by the unilateral rowing is corrected by the two steersmen. [824] ● [232] [412]

When they first launch a canoe the Onges decorate it with ochre designs like those on their bodies and the hollowed logs used to hold honey, although they are washed off as soon as the craft enters the water. As usual the men do all the work up to that point and the women do the painting. The initial painting is the only form of ornament on the canoes; there is not even a mark of ownership, although each canoe is curiously enough recognized as the property of one man, despite the fact that everyone has helped to 501 531 [462] [422] [126]

¹ I am unable to agree with Brown that the Onge canoes are extremely small, that they have bow and stern, and that their floats are inefficient. My own experiences of travelling in the canoes has led me to the opinion that on these and other points Brown was wrong, possibly partly because he never actually visited Little Andaman. [114]

THE UNITY OF THE NEGRITOS

in the division of all meat. Certain cuts are the property of the hunter, of his helpers, and of his relations and after them, in order, of the remaining members of the group; everyone knows his position in advance. Each portion is tied round with a reed fibre, which is allowed to dangle out over the top of the communal cooking-pot ready to haul the meat out when required. [224] [252]

In the case of pork the prized cut is one which comprises the kidneys and the surrounding fat; this fat is called *cian*,¹ and is very highly esteemed. Some authors (Brown, for example) have stated that turtles and pigs are always cut up with the head ritually pointing towards the sea as otherwise the meat would be considered inedible. This is certainly not the case on Little Andaman, and I have never seen any such directional ritual among any of the Negritos, all of whom practise division of meat according to a prescribed order of precedence. Turtles at any rate are slaughtered facing up the sloping beach simply because it is then easier to hold the beast from behind and avoid its bite. Ritual there is, but usually with a good practical basis. [224] [225] [262] [252] [114]

More ritual attaches to the way in which the game is carried back to the camp, and the wood to be used for the cooking fire. Pigs, killed and gutted, are tied in ropes made of *Ficus laccifera* and carried somehow on the back of the victorious hunter. If it is not far to the camp he will not bother to tie up the snout and feet, but otherwise the front and back legs are tied, and one long cord joins both pairs to the snout - again a practical ritual, giving the hunter a more compact weight to carry. [224] [482] [283] [824]

Man, Portman, Brown and others all say that each type of game has to be cooked over a fire of a particular wood. My own observations showed that whereas the ritual of dissection is inviolable, the Onges always use the first wood that comes to hand, regardless of its source, taking as usual the line of least resistance. This is again in keeping with the tendency of primitive peoples to expend only the very minimum of energy to achieve their object. Their religious beliefs and superstitions are not carried to the limit, simply because [252] [824] [372] [114]

¹ It is interesting that in their very restricted world the Onges have few standards of comparison or words to express condemnation or approval, and this word *cian* is used as one of high praise, applied to inanimate objects, animals, and people alike. The precise qualities which are conveyed by the word are difficult to evaluate in the absence of fuller knowledge of the Onge language. [192]

THE ANDAMAN ISLANDERS

252
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824
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their love of existing with as little effort as possible is paramount. Since any wood is as good as the next for making a fire, the spirits conveniently have nothing to say in the matter. In other circumstances material considerations lead to quite the opposite effect: when the Onges dig up roots or tubers they not only replace the earth, but cover the place with leaves, the ritual having the good practical objective of appeasing the spirits and ensuring further supplies.

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The preservation of skulls for magical purposes or out of pure superstition survives mainly in Asia and Oceania. In Asia it coincides with other beliefs which demand the killing of domestic animals by strangulation. I have seen this practised along the high reaches of the valley of the Brahmaputra, particularly among the Abor, and the Nagas, and in many other tribes to the south of Tibet and China, all of whom preserve skulls. Head-hunting, found throughout southern Asia, in the islands, and as far as Oceania, is also practised in the areas where animal skulls are preserved.

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The preservation of animal skulls, particularly bear skulls, is still practised in mongoloid peoples as far as the north of Asia; apart from the Andamans and the Nicobars, human and animal bones are preserved in many parts of Indonesia and as far as New Guinea. In the corona of small islands along the west coast of Sumatra the custom coincides with many others, as well as with certain types of huts and canoes, all present in the Andamans and Nicobars. A good example are the huts raised up off the ground on stilts, common in the Nicobars, Nias, Engano, Mentawai and various parts of Indonesia. The single-boom canoes of these areas, quite apart from their general similarity of structure, all have certain identical features, even to the method of fixing the lateral float of green wood, with pointed hardwood pegs stuck in it like spills. This, again, cannot be due to chance; it must be the effect of a very ancient cultural diffusion, now surviving only in a few specific areas.

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The skulls preserved by the Onges have one point of interest; it is the duty of the wife to clean the trophies brought back by her proud husband and then paint them lovingly with lines of ochre. After every successful hunting expedition the wives can be seen busily painting, while the husbands look on with satisfaction.